Today's Date: 4/6/04

What date would you like to use to limit the search?
Priority Date: 8/22/2000 Other:

Name: Kenny Lin

AU 2154 **Examiner #** 79515

Room # SW05 **Phone** 305-0438

Serial # 09/643473

Format for Search Results (Circle One):
(PAPER) DISK EMAIL

Where have you searched so far?
(USP) (DWPI) (EPO) (JPO) (ACM) IBM TDB
IEEE INSPEC SPI Other _google_

Is this a "Fast & Focused" Search Request? (Circle One) (YES) NO
A "Fast & Focused" Search is completed in 2-3 hours (maximum). The search must be on a very specific topic and meet certain criteria. The criteria are posted in EIC2100 and on the EIC2100 NPL Web Page at http://ptoweb/patents/stic/stic-tc2100.htm.

What is the topic, novelty, motivation, utility, or other specific details defining the desired focus of this search? Please include the concepts, synonyms, keywords, acronyms, definitions, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract, background, brief summary, pertinent claims and any citations of relevant art you have found.

Network health measurement & computing

① Sum of unrouted permanent virtual circuits (PVC)
   calculat

② Sum of PVC whose cost exceeds certain optimal route
   cost   efficient

③ Sum of PVC off an optimal path

   cost calculation
                    comparison of cost ⟵
   network routing   to predetermined amount

STIC Searcher Carol wong **Phone** 305-9129

Date picked up 4-7-04 **Date Completed** 4-7-04

```
Set     Items    Description
S1      633595   COMPARE? ? OR COMPARING OR COMPARISON?
S2      222584   EVALUAT???? ?
S3       11198   S1:S2(3N)(COST OR COSTS OR COSTED OR COSTING? OR EXPENSE? ?
                 OR EXPENDITURE? OR PRICE OR PRICES OR FEE OR FEES)
S4     1096423   CONNECT???? ? OR CONNECTIVIT? OR ROUTE OR ROUTES OR ROUTED
                 OR ROUTING OR PATH? ? OR PATHWAY? ?
S5       70901   S4(3N)(NETWORK? OR NET()WORK? ? OR EXTRANET? OR INTERNET? ?
                 OR INTRANET? OR VLAN? ? OR VPN? ? OR LAN OR LANS OR WAN OR W-
                 ANS OR WLAN OR WLANS)
S6       83269   BASELINE? ? OR BASE()LINE? ? OR BENCHMARK? OR BENCH()MARK?
                 ? OR YARDSTICK? OR YARD()STICK? ? OR TOUCHSTONE? OR TOUCH()ST-
                 ONE? ? OR TEMPLATE?
S7        3051   (OPTIMAL OR OPTIMUM?)(2W)S4
S8          14   S3(25N)S7
S9          14   IDPAT (sorted in duplicate/non-duplicate order)
S10         14   IDPAT (primary/non-duplicate records only)
S11      13810   (OPTIMIS? OR OPTIMIZ? OR BEST OR EFFICIEN? OR EFFICACIOUS?
                 OR EFFECTUAL? OR EFFECTIVE?)(2W)S4
S12         12   S3(25N)S11
S13         11   S12 NOT S10
S14         11   IDPAT (sorted in duplicate/non-duplicate order)
S15         11   IDPAT (primary/non-duplicate records only)
```

10/5,K/6   (Item 6 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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00343475
Routing method for fast packet switching systems.
Leitweglenkungsverfahren fur schnelle Paketvermittlungssysteme.
Procede de routage pour systemes de commutation rapide de paquets.
PATENT ASSIGNEE:
   CSELT Centro Studi e Laboratori Telecomunicazioni S.p.A., (211670), Via
      Guglielmo Reiss Romoli, 274, I-10148 Turin, (IT), (applicant designated
      states: BE;DE;FR;GB;NL;SE)
INVENTOR:
   Melen, Riccardo, Via Canova, 30, Torino, (IT)
LEGAL REPRESENTATIVE:
   Riederer Freiherr von Paar zu Schonau, Anton et al (9653), Van der Werth,
      Lederer & Riederer Freyung 615 Postfach 2664, D-84010 Landshut, (DE)
PATENT (CC, No, Kind, Date): EP 343611 A2   891129 (Basic)
                              EP 343611 A3   910605
                              EP 343611 B1   940817
APPLICATION (CC, No, Date):   EP 89109293 890523;
PRIORITY (CC, No, Date): IT 8867474 880524
DESIGNATED STATES: BE; DE; FR; GB; NL; SE
INTERNATIONAL PATENT CLASS: H04L-012/56;
CITED PATENTS (EP A): EP 204959 A
CITED REFERENCES (EP A):
   PROCEEDINGS OF THE INTERNATIONAL ZURICH SEMINAR ON DIGITAL
      COMMUNICATIONS, 8th - 10th March 1988, pages 207-212, IEEE, New York,
      US; G.J. ANIDO et al.: "Multi-path routing techniques for a class of
      multistage fast packet switches"
   IEEE TRANSACTIONS ON COMMUNICATIONS, vol. COM-24, no. 1, January 1976,
      pages 43-59, New York, US; H. RUDIN: "On routing and "Delta routing": A
      taxonomy and performance comparison of techniques for packet-switched
      networks"
   IEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS, vol. SAC-5, no. 8,
      October 1987, pages 1293-1301, New York, US; M. DE PRYCKER et al.:
      "Performance of a service independent switching network with
      distributed control";

ABSTRACT EP 343611 A2
   A fast packet switching system comprises an interconnection network
associated with a distributed control structure composed of a plurality
of processing units (UC1-1 ... UC3-16) managing the routing at the
virtual call level. At least some of said processing units associated
each with a group of network inputs/outputs store bandwidth occupancy
data relevant to the interstage links which can be reached from the
inputs of said group and are included between said inputs and a central
network stage where there is a maximum number of alternative paths or,
respectively, bandwidth occupancy data relevant to interstage links which
lead to the outputs of said group and are included between said stage and
the output, said data being updated whenever a new call is routed.
   When a virtual call is to be routed, the processing units associated
with the input or respectively the output involved in the connection,
evaluate each, on the basis of the up-to-date conditions of bandwidth
occupancy and of the bandwidth requirements of the new call, a cost
function of the connection along the portion of each of the possible
routing paths included between the input and the stage where there is the
maximum number of alternative paths, or respectively for the portion of
each routing path included between such stage and the output; the results
of the evaluations carried out by said units are combined together in one

of the units which determined a global cost function for the individual
connection paths and forwards the call on the path presenting the minimum
cost function.
ABSTRACT WORD COUNT: 260

...SPECIFICATION the new connection.
   On the contrary the present invention provides a method wherein a
global **cost** function is **evaluated** , without burdening the control
devices with an excessive processing load: in this way the path found is
actually the **optimal** **path** between the network input and output.
   The method provided by the invention for the routing...is applied
present further advantages in addition to that deriving from the choice
of the **optimum** **routing** **path** made on the basis of a global network
vision. More particularly, the fact that the processing units which
evaluate the **cost** function must control only a part of the links
reduces processing times. Besides, sharing the...

...SPECIFICATION the new connection.
   On the contrary the present invention provides a method wherein a
global **cost** function is **evaluated** , without burdening the control
devices with an excessive processing load: in this way the path found is
actually the **optimal** **path** between the network input and output.
   The method provided by the invention for the routing...is applied
present further advantages in addition to that deriving from the choice
of the **optimum** **routing** path made on the basis of a global network
vision. More particularly, the fact that the processing units which
evaluate the **cost** function must control only a part of the links
reduces processing times. Besides, sharing the...

 10/5,K/7   **(Item 7 from file: 349)**
DIALOG(R)File 349:PCT FULLTEXT
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01041742   **Image available**
SELECTING AN OPTIMAL PATH BETWEEN A FIRST TERMINAL AND A SECOND TERMINAL

VIA A PLURALITY OF COMMUNICATION NETWORKS
SELECTION D'UN TRAJET OPTIMAL ENTRE UN PREMIER TERMINAL ET UN SECOND
  TERMINAL VIA UNE PLURALITE DE RESEAUX DE COMMUNICATION

English Abstract
  A method and system connects a first terminal via multiple networks to a
  second terminal. An environment description is acquired and parsed by a
  description parser into cost parameters using a set of rules. An
  objective function **evaluates** the cost parameters to determine an
  optimal   path to **connect** the first terminal to the second terminal
  through the multiple networks using a switch. The selection of the
  optimal path can be done periodically during a particular application
  session.

French Abstract
  La presente invention concerne un procede et un systeme permettant de
  connecter un premier terminal a un second terminal via une pluralite de
  reseaux. Une description d'environnement est acquise et analysee par un
  analyseur de description donnant des parametres de couts par utilisation
  d'un ensemble de regles. Une fonction d'objectif evalue les parametres de
  couts pour determiner un chemin optimal pour connecter le premier
  terminal au second terminal via les multiples reseaux par utilisation
  d'un commutateur. La selection du chemin optimal peut se faire
  periodiquement pendant une session d'application particuliere.

English Abstract
  ...by a description parser into cost parameters using a set of rules. An

objective function **evaluates** the **cost** parameters to determine an
optimal path to **connect** the first terminal to the second terminal
through the multiple networks using a switch. The...

Detailed Description
... by a description parser into cost parameters
using a set of rules. An objective function **evaluates** the **cost**
parameters to determine an **optimal path** to **connect** the first
terminal to the second terminal through the multiple networks
using a switch. The

Claim
... SHIFTEU (FULF20
PCT/JP03/01500 parsing an environment description of the plurality of
networks
into **cost** parameters;
an **evaluator** determining an **optimal** path through the
plurality of networks using an objective function and the cost
parameters; and
a...

 10/5,K/8   (Item 8 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2004 WIPO/Univentio. All rts. reserv.

00955255   **Image available**
LOOP-FREE MULTIPATH ROUTING ALGORITHM USING DISTANCE VECTORS
**PROCEDE DE ROUTAGE MULTICHEMIN SANS BOUCLE UTILISANT DES VECTEURS DE
    DISTANCE**
Patent Applicant/Assignee:
  THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, Office of the President,
    1111 Franklin Street, 12th Floor, Oakland, CA 94607-5200, US, US
    (Residence), US (Nationality)
Inventor(s):
  GARCIA-LUNA-ACEVES Jose Joaquin, 82 Lakewood Circle, San Mateo, CA 94402,
    US,
  VUTUKURY Srinivas, 1271 Vicente Drive, #184, Sunnyvale, CA 94086, US,
Legal Representative:
  O'BANION John P (agent), O'Banion & Ritchey LLP, Suite 1550, 400 Capitol
    Mall, Sacramento, CA 95814, US,
Patent and Priority Information (Country, Number, Date):
  Patent: WO 200289402 A2-A3 20021107 (WO 0289402)
  Application: WO 2001US51611 20011029 (PCT/WO US0151611)
  Priority Application: US 2000244622 20001030
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU
  CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP
  KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD
  SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
  (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Main International Patent Class: H04L-012/56
Publication Language: English
Filing Language: English
Fulltext Availability:
  Detailed Description
  Claims
Fulltext Word Count: 9628

English Abstract
A routing methodology for constructing multiple loop-free routes within a network of nodes executing the methodology. The method is capable of generating shortest-distance routing within the network and is not subject to the counting-to-infinity problem to which conventional distance-vector routing protocols are subject. By way of example the method comprises computing link distances$D"sup"ij$? to generate routing graph $SG"sub"j$. The nodes exchange distance and status information and upon receiving increasing distance information diffusing computations are performed. The information collected is used to maintain routing tables, from which shortest-path routes may be selected according to loop-free invariant (LFI) conditions.

French Abstract
L'invention concerne une methodologie de routage destinee a construire des routes multiples sans boucle a l'interieur d'un reseau de noeuds executant la methodologie. Le procede peut generer un routage de la plus courte distance a l'interieur du reseau et n'est pas sujet au probleme de comptage a l'infini auquel les protocoles classiques de routage vecteur-distance sont sujets. A titre d'exemple, le procede consiste a calculer des distances de liaison <i>$D"sup"i "sub"j$ </i>pour generer un graphe de routage <i>$SG"sub"j$</i>. Les noeuds echangent des informations de distance et d'etat et lors de la reception des calculs diffusant des informations de distance croissantes sont effectues. Les informations collectees sont utilisees pour actualiser des tables de routage, dans lesquelles les routes du plus court chemin peuvent etre selectionnees selon des conditions d'invariant sans boucle (LFI).

Legal Status (Type, Date, Text)
Publication   20021107 A2 Without international search report and to be
                          republished upon receipt of that report.
Examination   20030327 Request for preliminary examination prior to end of
                          19th month from priority date
Search Rpt   20030821 Late publication of international search report
Republication 20030821 A3 With international search report.

Fulltext Availability:
  Detailed Description

Detailed Description
... are a function of the traffic on the link. This is particularly true
    when near- **optimal** delay **routing** is utilized, in which the link costs
    are periodically measured and reported. For these reasons, the algorithms
    are **compared** when multiple link- **cost** changes occur. Link costs are
    chosen randomly within a range and link-cost change events...
? t10/5,k/10-12,14

 10/5,K/10   (Item 10 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00939230   **Image available**
EFFICIENT PATH LEARNING IN NETWORK
APPRENTISSAGE EFFICACE DE CHEMIN DANS UN RESEAU
Patent Applicant/Assignee:
  TELEPHONICS WIRELESS CORPORATION, 100 Rialto Place, Suite 705, Melbourne,
    FL 32901, US, US (Residence), US (Nationality), (For all designated
    states except: US)
Patent Applicant/Inventor:
  CHAFFEE Donald, 575 Highway A1A, Satellite Beach, FL 32937, US, US

(Residence), US (Nationality), (Designated only for: US)
   MATTHEWS Gary, 665 Jackson Court, Satellite Beach, FL 32937, US, US
      (Residence), US (Nationality), (Designated only for: US)
   D'AGATI Laurence, 1010 Heatherwood Way, Melbourne, FL 32940, US, US
      (Residence), US (Nationality), (Designated only for: US)
Legal Representative:
   O'ROURKE Thomas A (agent), Wyatt, Gerber & O'Rourke, 99 Park Avenue,
      Suite 800, New York, NY 10016, US,
Patent and Priority Information (Country, Number, Date):
   Patent: WO 200273354 A2-A3 20020919 (WO 0273354)
   Application: WO 2002US7255 20020311 (PCT/WO US0207255)
   Priority Application: US 2001808635 20010314
Designated States: AE AG AL AU BA BB BG BR BZ CA CN CO CR CU CZ DM DZ EC EE
   GD GE HR HU ID IL IN IS JP KR LC LK LR LT LV MA MG MK MN MX MZ NO NZ OM
   PH PL RO RU SG SI SK TN TR TT TZ UA US UZ VN YU ZA
   (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
   (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
   (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
   (EA) AM AZ BY KG KZ MD RU TJ TM
Main International Patent Class: H04L-012/56
Publication Language: English
Filing Language: English
Fulltext Availability:
   Detailed Description
   Claims
Fulltext Word Count: 11710

English Abstract
   The present invention relates to a network nodes that are interconnected
   by communication links. Each node is capable of determining communication
   paths or routes from itself to as many other nodes as possible, either
   directly or relaying through other nodes, in order to complete the
   network. These paths are evaluated as new information concerning a route
   is generated, according to selected criteria, so that the best paths are
   identified, remembered and used when communication is performed. This
   invention is concerned with the determination of best paths through a
   network and the maintenance of these paths as communication conditions
   and node population changes.

French Abstract
   L'invention concerne des noeuds de reseau qui sont interconnectes par des
   liaisons de communication. Chaque noeud est capable de determiner des
   chemins ou trajets de communication, de lui-meme vers le plus grand
   nombre possible de noeuds, soit directement soit par relais au moyen
   d'autres noeuds, pour parfaire le reseau. Ces chemins sont evalues a
   mesure que de nouvelles informations relatives a un trajet sont
   produites, selon des criteres selectionnes en vue d'identifier les
   meilleurs chemins, de les memoriser et de les utiliser lors de
   l'etablissement ulterieur de communications. L'invention vise a
   determiner les meilleurs chemins a travers un reseau, et a maintenir ces
   chemins au fil des changements de conditions de communication et de
   population de noeuds.

Legal Status (Type, Date, Text)
Publication 20020919 A2 Without international search report and to be
                        republished upon receipt of that report.
Examination   20030306 Request for preliminary examination prior to end of
                        19th month from priority date
Search Rpt   20030530 Late publication of international search report
Republication 20030530 A3 With international search report.

Fulltext Availability:
  Detailed Description

Detailed Description
... destination in a store-and-forward packet network is required in order
  to select the **optimum   path** for a message through the network.
  Evaluation of the network **cost** must be accomplished in a relatively
  simple manner in order to create a practical network...

 10/5,K/11   (Item 11 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2004 WIPO/Univentio. All rts. reserv.

00880970   **Image available**
ON-LINE INTERACTIVE TRAVEL BOOKING
SYSTEME INTERACTIF DE RESERVATION DE VOYAGE EN LIGNE
Patent Applicant/Assignee:
  CYBERES SYSTEMS LTD, Mitre House, North Parkroad, Harrogate, North
    Yorkshire HG1 5RX, GB, GB (Residence), GB (Nationality), (For all
    designated states except: US)
Patent Applicant/Inventor:
  MALIK Tariq Mohsin, 44 West End Ave, Harrogate, North Yorkshire HG2 9BY,
    GB, GB (Residence), GB (Nationality), (Designated only for: US)
Legal Representative:
  ROBERTS Gwilym Vaughan (et al) (agent), Kilburn & Strode, 20 Red Lion
    Street, London WC1R 4PJ, GB,
Patent and Priority Information (Country, Number, Date):
  Patent: WO 200215064 A2-A3 20020221 (WO 0215064)
  Application: WO 2001GB3479 20010802 (PCT/WO GB0103479)
  Priority Application: GB 200019955 20000814
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU
  CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP
  KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD
  SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
  (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Main International Patent Class: G06F-017/60
Publication Language: English
Filing Language: English
Fulltext Availability:
  Detailed Description
  Claims
Fulltext Word Count: 8485

English Abstract
  An on-line travel booking system includes a visual reference data afield,
  for example a world map. The user can click on destination or departure
  points, and drill down to more detailed maps. Having selected one or more
  legs to the journey, the user can access real-time price and availability
  data and can obtain a display of all alternative travel options, which
  can be bound by predetermined customer preferences. The system can
  provide alternative routes and/or automatic route selection as
  appropriate. In addition the system allows the user to access peripheral
  information relating to travel between route points or the route points
  themselves on-line simply by clicking on the relevant point in the visual
  data reference field.

French Abstract

L'invention concerne un systeme interactif de reservation de voyages en ligne. Ce systeme comprend un champ de donnees de references visuelles, par exemple, la carte du monde. L'utilisateur peut cliquer sur un point de destination ou de depart, et acceder, en mode descendant, a des cartes plus detaillees. Apres avoir selectionne un ou plusieurs trajets, l'utilisateur peut avoir acces aux prix en temps reel et aux donnees relatives a la disponibilite, et peut afficher toutes les options de voyage possibles, qui peuvent etre liees par des preferences de clients predeterminees. Ce systeme peut proposer d'autres itineraires et/ou une selection automatique d'itineraires selon le cas. En outre, ce systeme permet a l'utilisateur d'avoir acces en ligne aux informations peripheriques concernant le voyage entre des points du trajet ou les points eux-memes, en cliquant simplement sur le point concerne dans le champ de reference de donnees visuelles.

Legal Status (Type, Date, Text)
Publication   20020221 A2 Without international search report and to be
                         republished upon receipt of that report.
Examination   20020510 Request for preliminary examination prior to end of
                         19th month from priority date
Search Rpt   20020510 Late publication of international search report
Republication 20020510 A3 With international search report.

Fulltext Availability:
  Detailed Description

Detailed Description
... shown at 102. The
  arrangement gives instant access to current availability and the ability
  to **compare** different classes, **prices** , routes and rules such that the
  user may select the **optimum** available **route** rather than simply
  viewing the seat that they are particularly interested in. In addition,
  this...

 10/5,K/12   (Item 12 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2004 WIPO/Univentio. All rts. reserv.

00836174   **Image available**
METHOD AND SYSTEM FOR CONTROLLING DATA TRAFFIC IN A NETWORK
PROCEDE ET SYSTEME SERVANT A CONTROLER LE TRAFIC DE DONNEES DANS UN RESEAU
Patent Applicant/Assignee:
  INFOSIM NETWORKING SOLUTIONS AG, Sedanstrasse 27, 97082 Wurzburg, DE, DE
    (Residence), DE (Nationality), (For all designated states except: US)
Patent Applicant/Inventor:
  KOHLER Stefan, Sandstrasse 1, 97218 Gerbrunn, DE, DE (Residence), DE
    (Nationality), (Designated only for: US)
  STAEHLE Dirk, Auf Der Schanz 50, 97076 Wurzburg, DE, DE (Residence), DE
    (Nationality), (Designated only for: US)
  KOHLHAAS Ute, Adalbertstrasse 65, 52062 Aachen, DE, DE (Residence), DE
    (Nationality), (Designated only for: US)
  TRAN-GIA Phuoc, Josef-Seitz-Strasse 49, 97076 Wurzburg, DE, DE
    (Residence), DE (Nationality), (Designated only for: US)
Legal Representative:
  SCHMIDT Steffen (agent), Wuesthoff & Wuesthoff, Patent- und
    Rechtsanwalte, Schweigerstr. 2, 81541 Munchen, DE,
Patent and Priority Information (Country, Number, Date):
  Patent: WO 200169866 A1 20010920 (WO 0169866)
  Application: WO 2001EP2965 20010315 (PCT/WO EP0102965)
  Priority Application: WO 2000EP2289 20000315

Designated States: AU BR CA CN IL IN JP KR MX NO SG US ZA
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
Main International Patent Class: H04L-012/56
Publication Language: English
Filing Language: English
Fulltext Availability:
  Detailed Description
  Claims
Fulltext Word Count: 11336

English Abstract
  Touting is one of the key issues in networks for communication of data.
  Conventionally, the optimization of the routing for a particular network
  is achieved by improving/changing/expanding the routing protocol. In
  order to optimize the routing of data networks without varying existing
  routing protocols, the present invention provides a method and a system
  for optimizing the routing of data to be communicated in a network. In
  particular, the invention achieves an improved control for routing data
  traffic in a network by a minimization of link costs between nodes of the
  network.
French Abstract
  L'acheminement presente une importance de premier ordre dans des reseaux
  servant a communiquer des donnees. On optimise habituellement
  l'acheminement sur un reseau determine par
  amelioration/modification/expansion du protocole d'acheminement.
  L'invention concerne un procede et un systeme servant a optimiser
  l'acheminement de donnees dans des reseaux sans modifier les protocoles
  d'acheminement existants. Elle concerne, en particulier, l'amelioration
  du controle de l'acheminement du trafic de donnees dans un reseau par
  limitation au strict minimum des couts des liaisons entre les noeuds du
  reseau.

Legal Status (Type, Date, Text)
Publication 20010920 A1 With international search report.
Publication 20010920 A1 Before the expiration of the time limit for
                         amending the claims and to be republished in the
                         event of the receipt of amendments.
Examination   20011220 Request for preliminary examination prior to end of
                         19th month from priority date

Fulltext Availability:
  Detailed Description
  Claims

Detailed Description
... possible that a data path of the selected data paths having a sum of
  link **costs** being larger **compared** to sums of link costs for remaining
  data paths can be selected as the **optimum** data **path** .

  It is preferred to define cost constraints for all of the selected data
  paths other...

Claim
... and/or
  - a data path of the selected data paths having a sum of link   **costs**
  being larger **compared** to sums of link costs for remaining data paths is
  selected as the **optimum** data **path** .

  21 Method according to claim 19 or 20, wherein
  - cost constraints are defined for all...

10/5,K/14   (Item 14 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2004 WIPO/Univentio. All rts. reserv.

00400924   **Image available**
ALLOCATING COMMUNICATION TRAFFIC
ATTRIBUTION DE TRAFIC DE TELECOMMUNICATION
Patent Applicant/Assignee:
  BRITISH TELECOMMUNICATIONS PLC,
  JOHNSON David,
Inventor(s):
  JOHNSON David,
Patent and Priority Information (Country, Number, Date):
  Patent: WO 9741668 A1 19971106
  Application: WO 97GB1125 19970423   (PCT/WO GB9701125)
  Priority Application: GB 968816 19960430
Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES
  FI GB GE HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW
  MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN GH KE LS
  MW SD SZ UG AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE
  IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Main International Patent Class: H04L-012/56
International Patent Class: H04Q-03:00
Publication Language: English
Fulltext Availability:
  Detailed Description
  Claims
Fulltext Word Count: 4138

English Abstract
  Communication traffic is allocated through a network of interconnected
  nodes (103). A communication path may be established between terminals
  (101) via a plurality of routes. Parameters are processed for portions of
  a set of potential routes to determine a notional cost of using each of
  these routes. An optimal level of traffic is identified for each route
  portion and a parameter (such as notional route length) is adjusted to
  make the use of said route more costly if the traffic for that portion
  exceeds said notional value and, in addition, if said traffic for said
  portion falls below said **optimum** value. A **route** is then selected with
  reference to route **cost** **comparisons** .

French Abstract
   Le trafic de telecommunication est attribue par un reseau de noeuds
  interconnectes (103). Un trajet de communication peut etre etabli entre
  des terminaux (101) via une pluralite de voies d'acheminement. Les
  parametres sont traites pour des parties d'un ensemble de voies
  d'acheminement potentielles, de facon a determiner un cout theorique de
  l'utilisation de chacune de ces voies. Un niveau optimal de trafic est
  identifie pour chaque partie de la voie d'acheminement et un parametre
  (tel qu'une longueur de route theorique) est regle de facon a rendre
  l'utilisation de ladite voie plus couteuse si, dans cette partie, le
  trafic depasse ladite valeur theorique ou tombe en dessous de ladite
  valeur optimale. Une voie d'acheminement est ensuite selectionnee par
  reference aux comparaisons portant sur le cout d'exploitation des voies.

English Abstract
  ...said notional value and, in addition, if said traffic for said portion
  falls below said **optimum** value. A **route** is then selected with
  reference to route **cost** **comparisons** .
?

DIALOG(R)File 348:EUROPEAN PATENTS
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00893261
Device for providing a cost-optimized telecommunication
Vorrichtung zur Ermoglichung einer kostenoptimierten Telekommunikation
Dispositif permettant l'optimisation du cout de telecommunication
PATENT ASSIGNEE:
   Triple I GmbH fur technische Kommunikationsintegration, (1937390),
      Andernacher Str. 6a, D-90411 Nurnberg, (DE), (Applicant designated
      States: all)
INVENTOR:
   The inventor has agreed to waive his entitlement to designation.
LEGAL REPRESENTATIVE:
   Matschkur, Lindner Blaumeier Patent- und Rechtsanwalte (100486),
      Dr.-Kurt-Schumacher-Strasse 23, 90402 Nurnberg, (DE)
PATENT (CC, No, Kind, Date): EP 817458 A2 980107 (Basic)
                              EP 817458 A3 990922
APPLICATION (CC, No, Date):   EP 97111316 970704;
PRIORITY (CC, No, Date): DE 19627287 960706
DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU;
   MC; NL; PT; SE
INTERNATIONAL PATENT CLASS: H04M-015/00; H04L-012/00
ABSTRACT EP 817458 A2 (Translated)

   Telecommunications cost optimisation device
   The telecommunications cost optimisation device uses a
telecommunications device (3) which can be operated via a number of
alternate telecommunications networks (GSM,ISDN), selected in dependence
on the cost of the respective connection paths.
   The telecommunications device is coupled to a network selection device
(1) **evaluating** the network specific **cost** parameters for each network
to select the most cost- **effective connection path** .
TRANSLATED ABSTRACT WORD COUNT: 64

ABSTRACT EP 817458 A2

   Telecommunications cost optimisation device
   The telecommunications cost optimisation device uses a
telecommunications device (3) which can be operated via a number of
alternate telecommunications networks (GSM,ISDN), selected in dependence
on the cost of the respective connection paths.
   The telecommunications device is coupled to a network selection device
(1) **evaluating** the network specific **cost** parameters for each network
to select the most cost- **effective connection path** .
ABSTRACT EP 817458 A2
   Vorrichtung zur Ermoglichung einer kostenoptimierten Telekommunikation
unter Verwendung einer Telekommunikationsvorrichtung und eines oder
mehrerer Telekommunikationsnetze, wobei mehrere unterschiedliche
Telekommunikationsnetze zur Verfugung stehen, die, gegebenenfalls in
Verbindung miteinander, dabei einen Kommunikationspfad bildend, im Rahmen
der Telekommunikation nutzbar sind, wobei die mit der
Telekommunikationsvorrichtung kommunizierende Vorrichtung uber
Zugangsmittel zu mehreren unterschiedlichen Netzen verfugt und ein Mittel
zur Ermittlung und Anwahl desjenigen Telekommunikationsnetzes oder
Kommunikationspfades aufweist, das oder der hinsichtlich der gegebenen
Kommunikationskosten im Zeitpunkt des Eingangs der von der
Telekommunikationsvorrichtung gelieferten Anwahlsignale optimiert ist,
wobei die Ermittlung in Abhangigkeit netzspezifischer Kostenparameter
erfolgt.
ABSTRACT WORD COUNT: 91
NOTE:
   Figure number on first page: 1

LEGAL STATUS (Type, Pub Date, Kind, Text):
   Withdrawal: 010214 A2 Date application deemed withdrawn: 20000323
   Assignee: 20000315 A2 Transfer of rights to new applicant: Deutsche
                            Telekom AG (1891494) Friedrich-Ebert-Allee 140

...ABSTRACT the respective connection paths.
   The telecommunications device is coupled to a network selection device
  (1) **evaluating** the network specific **cost** parameters for each network
  to select the most cost- **effective** **connection** **path** .

 15/5,K/3   (Item 3 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00335722
Method and apparatus for processing a database
Verfahren und Vorrichtung zur Datenbankverarbeitung
Methode et dispositif de traitement d'une base de donnees
PATENT ASSIGNEE:
  HITACHI, LTD., (204144), 6, Kanda Surugadai 4-chome, Chiyoda-ku, Tokyo
    100, (JP), (applicant designated states: DE;FR;GB)
INVENTOR:
  Tsuchida, Masashi, 14-21, Nishihara-2-chome, Shibuya-ku Tokyo, (JP)
  Ohmachi, Kazuhiko, 21-1-2, Takaishi-5-chome, Asao-ku Kawasaki-shi, (JP)
LEGAL REPRESENTATIVE:
  Strehl Schubel-Hopf Groening & Partner (100941), Maximilianstrasse 54,
    80538 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 326927 A2 890809 (Basic)
                              EP 326927 A3 921007
                              EP 326927 B1 961106
APPLICATION (CC, No, Date):   EP 89101283 890125;
PRIORITY (CC, No, Date): JP 8817071 880129
DESIGNATED STATES: DE; FR; GB
INTERNATIONAL PATENT CLASS: G06F-017/30;
CITED REFERENCES (EP A):
  IBM TECHNICAL DISCLOSURE BULLETIN. vol. 30, no. 9, February 1988, NEW
    YORK US pages 420 - 421; 'ACCESS PATH SELECTION IN RELATIONAL DATABASE
    SYSTEMS'
  IBM TECHNICAL DISCLOSURE BULLETIN. vol. 31, no. 2, July 1988, NEW YORK US
    pages 249 - 252; 'DYNAMIC ACCESS PATH DETERMINATION FOR TUPLE
    SELECTION'
  PROCEEDINGS ACM-SIGMOD CONFERENCE 1979, pages 23 - 34; P. G. SELINGER ET
    AL: 'Access Path Selection in a Relational Database Management System';

ABSTRACT EP 326927 A2
   A method for processing a database for analyzing a query to the
   database from a user to determine an internal processing procedure
   therefor and executing it (910) comprises the steps of preparing single
   or a plurality of internal processing procedures based on analysis result
   of the query including a variable inputted in a preprocess step and
   statistical information of a database system (940), selecting an optimum
   one of the internal processing procedures based on a value substituted
   for the variable of the query in a query execution stage and the
   statistical information of the database system (970), and executing the

query in accordance with the selected internal processing procedure
(980).   (see image in original document)
ABSTRACT WORD COUNT: 119

LEGAL STATUS (Type, Pub Date, Kind, Text):
 Application: 890809 A2 Published application (A1with Search Report
                              ;A2without Search Report)
 Examination: 910206 A2 Date of filing of request for examination:
                              901212
 Search Report: 921007 A3 Separate publication of the European or
                              International search report
 Grant: 961106 B1 Granted patent
 Oppn None: 971029 B1 No opposition filed
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language   Update   Word Count
        CLAIMS B (English)   EPAB96   469
        CLAIMS B (German)   EPAB96   436
        CLAIMS B (French)   EPAB96   541
        SPEC B   (English)   EPAB96   4747
Total word count - document A   0
Total word count - document B   6193
Total word count - documents A + B   6193

...SPECIFICATION expressions appearing by the query
        (3) Access path prune-down step 930 ... Pruning down of
   effective access **path** candidates based on the predetermined rule
        (4) Processing procedure generation step 940 ... **Cost   evaluation**
   such as number of times of input/output and CPU processing time, and
   generation of...

 15/5,K/5   (Item 5 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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01074947   **Image available**
METHOD TO PROVIDE EFFECTIVE CONNECTION GROOMING IN PNNI
PROCEDE D'ETABLISSEMENT EFFICACE DE CONNEXION DANS LE PROTOCOLE PNNI
Patent Applicant/Assignee:
   CISCO TECHNOLOGY INC, 170 West Tasman Road, San Jose, CA 95134, US, US
      (Residence), US (Nationality)
Inventor(s):
   SUNDARESAN Krishna, 790 S. Wolfe Road, Sunnyvale, CA 94086, US,
   CHELLAPPA Mahesh, 4231 Norwalk Drive, Apt. EE307, San Jose, CA 95129, US,

   KRISHNAMURTHY Chandrasekar, 1235 Wildwood Avenuw #25, Sunnyvale, CA 94089
      , US,
Legal Representative:
   MALLIE Michael J (et al) (agent), Blakely, Sokoloff, Taylor & Zafman LLP,
      7th floor, 12400 Wilshire Boulevard, Los Angeles, CA 90025, US,
Patent and Priority Information (Country, Number, Date):
   Patent: WO 2003105424 A1 20031218 (WO 03105424)
   Application: WO 2003US8785 20030320 (PCT/WO US0308785)
   Priority Application: US 2002171308 20020611
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU
   CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP
   KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO
   RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW
   (EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE
   SI SK TR
   (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
   (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
   (EA) AM AZ BY KG KZ MD RU TJ TM
Main International Patent Class: H04L-012/56
Publication Language: English
Filing Language: English
Fulltext Availability:

Detailed Description
Claims
Fulltext Word Count: 5621

English Abstract
A method to provide actual network connection routing cost for use in
connection grooming is disclosed for one embodiment. A setup message is
transmitted from a source network node, through one or more intermediate
nodes, to a destination node. A connect message, in acknowledgement of
the setup message is transmitted from the destination node, through the
one or more intermediate nodes, to the source node to establish a network
connection. The connect message includes an actual routing cost field.
For one embodiment, an actual routing cost field is carried in a generic
application transport (GAT) information element (IE) of a PNNI CONNECT
message. The actual routing cost field is updated at every node as each
link is traversed from the destination node to the source node. The
accumulated routing cost in the GAT IE represents the actual routing cost
of the SPVC, which the source node uses for connection grooming.

French Abstract
Cette invention concerne, dans un mode de realisation, un procede
permettant d'obtenir un cout reel d'acheminement de connexion de reseau
utilise lors de l'etablissement d'une connexion. Un message
d'initialisation est envoye a partir d'un noeud de reseau source, par un
ou plusieurs noeud intermediaires, a un noeud destinataire. Un message de
connexion, en reponse au message d'initialisation, est envoye du noeud
destinataire, par un ou plusieurs noeuds intermediaires, au noeud source
afin qu'une connexion de reseau soit etablie. Le message de connexion
comprend un champ consacre au cout reel d'acheminement. Dans un mode de
realisation, un champ consacre au cout reel d'acheminement est integre
dans un element d'information de transport d'application generique d'un
message de connexion au protocole PNNI. Le champ consacre au cout reel
d'acheminement est mis a jour au niveau de chaque noeud lorsque chacune
des liaisons est empruntee du noeud destinataire au noeud source. Le cout
d'acheminement accumule dans l'element d'information de transport
d'application generique represente le cout reel d'acheminement du circuit
SPVC que le noeud source utilise pour l'etablissement de la connexion.

Legal Status (Type, Date, Text)
Publication   20031218 A1 With international search report.
Examination   20040325 Request for preliminary examination prior to end of
                        19th month from priority date

Fulltext Availability:
  Detailed Description

Detailed Description
... to the actual cost of the SPVC. The actual cost may now be used for
  efficient   connection grooming. During grooming, the source node will
  be **comparing** the actual **cost** of the SPVC rather than the cost
  perceived by the source node. In the multi...

 15/5,K/6   (Item 6 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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01025725   **Image available**
SYSTEM AND METHOD FOR MANAGING INTERCONNECT CARRIER ROUTING
**SYSTEME   ET   PROCEDE   PERMETTANT   DE   GERER   L'ACHEMINEMENT   D'APPELS
    D'INTERCONNEXION ENTRE DES ENTREPRISES DE TELECOMMUNICATION**
Patent Applicant/Assignee:
  TELARIX INC, 8180 Greensboro Drive, McLean, VA 22102, US, US (Residence),
    US (Nationality)
Inventor(s):
  ZARGHAM Shawn, 10902 Bloomingdale Drive, Rockville, MD 20852, US,
  YAZDANPANAH Amir, 4935 Massachusetts Avenue, NW, Washington, DC 20016, US
    ,

HEKMAT Hormoz, 8045 Quarry Ridge Way, Bethesda, MD 20817, US,
Legal Representative:
  GOTTS Lawrence J (et al) (agent), Shaw Pittman, 1650 Tysons Boulevard,
    McLean, VA 22102-4859, US,

English Abstract
  A system and method for managing a carrier's interconnect traffic across
  a telecommunications network, the method involving receiving cost and
  routing rules from the carrier, gathering performance data corresponding
  to the interconnect traffic, applying the cost and routing rules to the
  performance data to determine a first impact on the interconnect traffic,
  receiving superseding routing rules from the carrier, automatically
  calculating proposed changes in network routing based on the superseding
  routing rules and the first impact, and presenting the proposed changes
  to the carrier.

French Abstract
  La presente invention se rapporte a un systeme et a un procede de gestion
  du trafic d'interconnexion entre entreprises de telecommunication a
  travers un reseau de telecommunication. Le procede consiste a recevoir
  des regles de cout et d'acheminement de la part de l'entreprise de
  telecommunication, a rassembler des donnees de performance correspondant
  au trafic d'interconnexion, a appliquer ces regles de cout et
  d'acheminement aux donnees de performance de maniere a determiner un
  premier impact sur le trafic d'interconnexion, a recevoir des regles
  d'acheminement de remplacement de la part de l'entreprise de
  telecommunication, a calculer automatiquement les changements proposes
  dans l'acheminement sur le reseau en fonction de ces regles
  d'acheminement de remplacement et du premier impact, et a presenter les
  changements proposes a l'entreprise de telecommunication.

Fulltext Availability:
  Detailed Description

Detailed Description
... of these critical business decisions include trading and negotiating
  with customers and vendors, monitoring traffic, **costs** , and revenues,
  evaluating trading (buy and sell) opportunities, determining **optimized**
  routing , and tuning network routing and bandwidth.

[0006] As demonstrated in Figure 1, with the deregulation...

15/5,K/7   (Item 7 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00871954   **Image available**
A FREQUENCY-DOMAIN EQUALIZER FOR TERRESTRIAL DIGITAL TV RECEPTION.
EGALISEUR DU DOMAINE DES FREQUENCES DESTINE A LA RECEPTION DE LA TELEVISION
      NUMERIQUE TERRESTRE
Patent Applicant/Assignee:
  KONINKLIJKE PHILIPS ELECTRONICS N V, Groenewoudseweg 1, NL-5621 BA
    Eindhoven, NL, NL (Residence), NL (Nationality)
Inventor(s):
  DAGNACHEW Birru, Prof. Holstlaan 6, NL-5656 AA Eindhoven, NL,
Legal Representative:
  GROENENDAAL Antonius W M (agent), Internationaal Octrooibureau B.V.,
    Prof. Holstlaan 6, NL-5656 AA Eindhoven, NL,
Patent and Priority Information (Country, Number, Date):
  Patent: WO 200205505 A2-A3 20020117 (WO 0205505)
  Application: WO 2001EP7244 20010627 (PCT/WO EP0107244)
  Priority Application: US 2000217143 20000707; US 2001840200 20010423
Designated States: CN JP KR
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
Main International Patent Class: H04L-027/02
International Patent Class: H04L-025/03
Publication Language: English
Filing Language: English
Fulltext Availability:
  Detailed Description
  Claims
Fulltext Word Count: 6420

English Abstract
  A single integrated circuit multi-standard demodulator includes an
  adaptive inverse channel estimator for frequency domain equalization
  which employs a recursive least square cost function in estimating the
  inverse channel from the received signal and an error estimate. Utilizing
  a diagonal correlation matrix, the solution to may be determined
  utilizing fewer computational resources than required by conventional
  frequency domain equalizers, shifting from a computational intensive to
  memory intensive implementation. The memory requirement is fully
  satisfied by memory available within conventional OFDM decoders, and the
  necessary computational resources may be readily mapped to the resources
  available within such decoders, improving integrated circuit
  cost-effectiveness of the multi-standard demodulator.

French Abstract
  La presente invention concerne un demodulateur multistandard a circuit
  integre unique comprenant un estimateur de voie dynamique inverse
  d'egalisation du domaine des frequences qui utilise une fonction
  recursive de cout par moindres carres pour estimer la voie inverse a
  celle du signal recu et effectuer une estimation d'erreur. A l'aide
  d'une matrice de correlation diagonale, on parvient a determiner une
  solution avec un nombre de ressources computationnelles inferieur a celui
  qui est utilise par les egaliseurs du domaine des frequences
  traditionnels, ce que l'on obtient en passant d'une mise en oeuvre
  exigeante en termes computationnels a une mise en oeuvre exigeante en
  termes de memoire. Les exigences de memoire sont entierement satisfaites
  par la memoire disponible dans les decodeurs a multiplexage frequentiel
  optique traditionnels, et les ressources computationnelles necessaires
  peuvent facilement etre mises en correspondance avec les ressources
  disponibles dans ces decodeurs, ce qui permet d'ameliorer le rapport
  cout-efficacite du modulateur multistandard de l'invention.

Legal Status (Type, Date, Text)
Publication 20020117 A2 Without international search report and to be

republished upon receipt of that report.
Search Rpt   20020704 Late publication of international search report
Republication 20020704 A3 With international search report.
Republication 20020704 A3 Before the expiration of the time limit for
                        amending the claims and to be republished in the
                        event of the receipt of amendments.

Fulltext Availability:
  Detailed Description

Detailed Description
... of a frequency domain equalizer for single carrier systems depends
    upon integrated circuit area cost- **effectiveness** and multi- **path**
    performance compared to a time domain alternative. For a multi-standard
    demodulator which includes COMM, the frequency domain equalizer results
    in a **cost** -effective solution **compared** to a time domain equalizer. The
    frequency domain equalizer of the present invention also exhibited...

  15/5,K/8   (Item 8 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00766328   **Image available**
ON-DEMAND OVERLAY ROUTING FOR COMPUTER-BASED COMMUNICATION NETWORKS
ROUTAGE PAR RECOUVREMENT SUR DEMANDE POUR RESEAUX DE COMMUNICATIONS
    INFORMATISES
Patent Applicant/Assignee:
  DIGITAL ISLAND INC, 45 Fremont Street, 12th Floor, San Francisco, CA
    94105, US, US (Residence), US (Nationality)
Inventor(s):
  RICCIULLI Livio, 15635 El Gato Lane, Los Gatos, CA 95032, US,
Legal Representative:
  WEAVER Jeffrey K (agent), Beyer Weaver & Thomas, LLP, P.O. Box 130,
    Mountain View, CA 94042-0130, US,
Patent and Priority Information (Country, Number, Date):
  Patent: WO 200079730 A2-A3 20001228 (WO 0079730)
  Application: WO 2000US16732 20000616 (PCT/WO US0016732)
  Priority Application: US 99336487 19990618
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE
  DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
  LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK
  SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
  (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Main International Patent Class: H04L-012/56
Publication Language: English
Filing Language: English
Fulltext Availability:
  Detailed Description
  Claims
Fulltext Word Count: 8642

English Abstract
  Methods and apparatus are disclosed for dynamically discovering and
  utilizing an optimized network path through overlay routing for the
  transmission of data. A determination whether to use a default network
  path or to instead use an alternate data forwarding path through one or
  more overlay nodes is based on real-time measurement of costs associated
  with the alternative paths, in response to a user request for
  transmission of message data to a destination on the network. Cost
  metrics include delay, throughput, jitter, loss, and security. The system
  chooses the best path among the default forwarding path and the multiple
  alternate forwarding paths, and implements appropriate control actions to
  force data transmission along the chosen path. No modification of
  established network communication protocols is required.

French Abstract
La presente invention concerne des procedes et un appareil permettant de
decouvrir et d'utiliser de maniere dynamique une voie de reseau optimisee
au moyen du routage par recouvrement pour l'emission de donnees.
Determiner s'il faut utiliser une voie de reseau par defaut ou une voie
d'acheminement de donnees de remplacement dans un ou plusieurs noeuds de
recouvrement depend du calcul en temps reel des couts associes aux voies
de remplacement, en reponse a une demande d'utilisateur de transmettre
des donnees de messages a une destination donnees dans le reseau. Le
calcul des couts implique le retard, le debit, la gigue, la perte et la
securite. Le systeme choisit la meilleur voie parmi la voie
d'acheminement par defaut et les voies d'acheminement de remplacement
multiples, et execute les actions de commande appropriees pour que la
transmission de donnees se fasse dans la voie choisie. En l'occurrence,
aucune modification de protocoles de communications de reseau n'est
necessaire.

Legal Status (Type, Date, Text)
Publication   20001228 A2 Without international search report and to be
                          republished upon receipt of that report.
Examination   20010607 Request for preliminary examination prior to end of
                          19th month from priority date
Search Rpt   20010712 Late publication of international search report
Republication 20010712 A3 With international search report.

Fulltext Availability:
  Detailed Description
  Claims

Detailed Description
...   In a preferred embodiment, those intermediate nodes are referred to as
an "overlay network". An **optimized**   **path**   for sending the requested
transmission is ultimately selected by **comparing**   the default   **cost**
against the alternative costs.

Further, the present invention discloses steps and means for transmitting
messages along an **optimized** non-default **path** passing through overlay
nodes, including forwarding of the message from the source to a first...

Claim
...   passing
through one or more intermediate nodes not on the default path;
c) determining the **optimized**   **path** by **comparing**   the default   **cost**
and the
alternative cost.

2 The method of claim 1, wherein the steps of the...

...or more intermediate nodes not on the default path; and wherein step (c)
further includes **comparing**   the default   **cost**   and the set of
alternative costs.
22
. The method of claim 14, further including the steps of.
determining a pruned topology representing potentially **optimizing**
 connections   between the intennediate nodes for use in the alternative
paths, and using the pruned topology...

...through one or more inten-nediate nodes not on the default path;
c) determining the **optimized**   **path** by **comparing**   the default   **cost**
and the
alternative cost.

26 The method of claim 25, wherein the communications network is
connectionoriented.

27 An overlay network apparatus for determining an **optimized**   **path**
for transmitting a message from a source to a destination within a

packet-switched computer...

15/5,K/9   (Item 9 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00512987   **Image available**
REMOTE COMPUTER COMMUNICATION
COMMUNICATIONS AVEC UN ORDINATEUR DISTANT
Patent Applicant/Assignee:
  INDUS RIVER NETWORKS INC,
  WEST Julian Wray,
  KEMP Bradford H,
  HOWARD Carol M,
  JONES Paul R Jr,
  MULLEN Jeffrey M,
  CURRIER Ronald L Jr,
Inventor(s):
  WEST Julian Wray,
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  MULLEN Jeffrey M,
  CURRIER Ronald L Jr,
Patent and Priority Information (Country, Number, Date):
  Patent: WO 9944339 A2 19990902
  Application: WO 99US4156 19990225   (PCT/WO US9904156)
  Priority Application: US 9830647 19980225
Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES
  FI GB GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV
  MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG
  US UZ VN YU ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ MD RU TJ TM
  AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM
  GA GN GW ML MR NE SN TD TG
Main International Patent Class: H04L-012/28
Publication Language: English
Fulltext Availability:
  Detailed Description
  Claims
Fulltext Word Count: 20510

English Abstract
   Software stored on a computer readable medium that causes a remote
   computer (100) to perform the function of establishing a data
   communication path to a computing resource, such as a computer network.
   Remote computer can establish a variety of communication paths to a local
   computer (110). In addition, alternative paths of communication paths can
   be established such as directly or through the Internet.
French Abstract
   L'utilisateur d'un ordinateur distant a generalement le choix entre
   plusieurs procedes d'acces et numeros de telephone au moyen desquels il
   peut connecter son ordinateur distant a un ordinateur local ou a un
   reseau local. L'utilisateur distant rencontre en general plusieurs
   problemes. Premierement, celui de connaitre les numeros et les procedes
   d'acces possibles et de connaitre egalement leur cout d'utilisation. Le
   premier probleme est exacerbe par le grand nombre de points d'acces
   disponibles, les changements des numeros d'acces telephoniques, les
   changements dans les delais d'acces par reseau et par telephone, ainsi
   que par les changements dans la qualite des services fournis par
   differents fournisseurs de services. La distribution, le stockage et la
   recherche d'un annuaire exhaustif avec les numeros d'acces et les couts
   associes seraient en general prohibitifs sur les ordinateurs distants
   comportant un stockage et une capacite de traitement limites, tels que
   les ordinateurs portables generalement utilises par les utilisateurs
   mobiles. Par ailleurs, si l'utilisateur ne reussit pas a etablir la voie
   de communication desiree, plusieurs lignes d'action s'offrent a lui.
   Deuxiemement, le choix de la ligne d'action appropriee qui, en general,

necessite le diagnostic du probleme rencontre lors de l'etablissement de
la liaison desiree.
Fulltext Availability:
  Detailed Description
  Claims

Detailed Description
... method also includes selecting a
  15 best one of the access paths according to the **evaluated**
   cost functions for the access paths, for example
  selecting the lowest cost path, and then initiating
  establishment of communication over the selected **best**
  access **path** . The access path can feature a dialed
  20 telephone channel to a telephone access number...for
  5 communicating with the computing resource.

  The method can also feature selecting a next **best**
  access **path** according to the **evaluated**   **cost** functions for
  the access paths, if communication over the selected **best**
  access **path** is not established. If communication over an
  access path cannot be successfully established, the
  method...

Claim
... claim 1 wherein establishing
  the data communication path further includes:
  if communication over the selected **best** access
  30 **path** is not established,
  - 67
  selecting a next one of the access paths
  based on **evaluation** of the **cost** function for the access
  paths, and
  initiating establishment of communication
  5 over the selected next...resource over that access path,
  select one of the access paths in accordance
  with the **evaluated**   **cost** functions for the access paths,
  and
  communicate over the selected **best** access
   path ; and
  wherein the management computer further includes
  software for causing the management computer to accept...

 15/5,K/10   (Item 10 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00431394   **Image available**
DYNAMIC RESTORATION PROCESS
PROCEDE DE RESTAURATION DYNAMIQUE
Patent Applicant/Assignee:
  MCI COMMUNICATIONS CORPORATION,
Inventor(s):
  CROSLIN William D,
Patent and Priority Information (Country, Number, Date):
  Patent: WO 9821858 A1 19980522
  Application: WO 97US20939 19971114   (PCT/WO US9720939)
  Priority Application: US 96749168 19961114
Designated States: CA JP MX AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT
  SE
Main International Patent Class: H04L-012/56
Publication Language: English
Fulltext Availability:
  Detailed Description
  Claims
Fulltext Word Count: 7440

English Abstract

A method and apparatus is provided for dynamically generating routes within a diverse interconnected network which may be in a state of flux. This routing process will utilize node source/target sets (102-106) and route intersection sets to reduce route generation time (110). In addition, the routing process makes route costing an integral part of the process rather than a completely predefined portion of the data fed to the process, thus eliminating the need to rebuild the data fed to the process if costs need to be dynamically adjusted. Data defining connectivity within a network is gathered from an existing data base of network interconnections (referred to here as the topology). An existing route within this topology is deemed to be non-viable due to some failure within the network. The invention will locate, if available, the optimal route around the network failure point utilizing short/long routing and route intersection sets.

French Abstract
    L'invention porte sur un procede et un appareil servant a creer dynamiquement des voies d'acheminement a l'interieur d'un reseau interconnecte en diversite pouvant se presenter comme des flux. Le procede recourt a des ensembles de noeuds source/cibles (102-106) et a des ensembles d'intersection de voies d'acheminement pour reduire le temps (110) d'etablissement des voies. Le procede considere de plus le cout de l'acheminement comme faisant partie integrante de ce meme procede plutot que comme etant une portion entierement predefinie des donnees fournies au procede, ce qui evite de restructurer les donnees fournies au procede lorsque les couts doivent etre ajustes dynamiquement. Les donnees definissant la connectivite interne du reseau sont prises dans une base de donnees existante d'interconnexions de reseau (dites ici "topologie"). Si une voie d'acheminement existante a l'interieur de la topologie est consideree comme non viable du fait d'une defaillance affectant le reseau, l'invention localise, si elle existe, la voie optimale contournant le point de defaillance a l'aide des ensembles d'itineraires longs et courts, et des ensembles d'intersections des voies d'acheminement.

Fulltext Availability:
  Detailed Description

Detailed Description
... selected. However, if the threshold is not exceeded, step 616 comes into play and this **compares** the accumulated **cost** to a current **best route** cost. If the accumulated cost does exceed the **best** current **route** cost, then the node is eliminated from routing at step 614 and the sub-process...

15/5,K/11   (Item 11 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00373512   **Image available**
EFFICIENT COMMUNICATION THROUGH NETWORKS
COMMUNICATIONS EFFICACES PAR RESEAUX
Patent Applicant/Assignee:
  MASHINSKY Alexander,
Inventor(s):
  MASHINSKY Alexander,
Patent and Priority Information (Country, Number, Date):
  Patent: WO 9714255 A2 19970417
  Application: WO 96IL124 19961009   (PCT/WO IL9600124)
  Priority Application: IL 115580 19951011
Designated States: AL AM AT AT AU BA BB BG BR BY CA CH CN CU CZ CZ DE DE DK
  DK EE EE ES FI FI GB GE HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV
  MD MG MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SK TJ TM TR TT UA UG US
  UZ VN KE LS MW SD SZ UG AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI
  FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Main International Patent Class: H04M-007/10
International Patent Class: H04M-07:00; H04M-11:00; H04M-03:42

English Abstract
   A method and device that interrogates the availability of a called party
   before placing a communication from the calling party to the called
   party. A callback may be initiated so that both communcations are
   completed simultaneously. The routing of communication may take place
   through any one of a number of different networks and at another time of
   the day, even if the caller does not otherwise have access to those
   networks.

French Abstract
   Un procede et un dispositif determinant la disponibilite d'un appele
   avant de demander une communication entre un appelant et cet appele. Un
   rappel peut etre mis en place pour que les deux communications soient
   etablies simultanement. L'acheminement d'une communication peut se faire
   par l'un des divers reseaux existants et a une autre heure du jour, meme
   si l'appelant n'a normalement pas acces a ces reseaux.

Fulltext Availability:
  Detailed Description

Detailed Description
...   of service to the location by the customer to help figure out the most
   cost **efficient**   **route** based on history of usage. A least   **cost**
   routing   **comparison** 104 is made to determine whether the new central
   local node's connection to
?

Set	Items	Description
S1	672370	COMPARE? ? OR COMPARING OR COMPARISON?
S2	142085	EVALUAT???? ?
S3	5069	S1:S2(3N)(COST OR COSTS OR COSTED OR COSTING? OR EXPENSE? ? OR EXPENDITURE? OR PRICE OR PRICES OR FEE OR FEES)
S4	3884408	CONNECT???? ? OR CONNECTIVIT? OR ROUTE OR ROUTES OR ROUTED OR ROUTING OR PATH? ? OR PATHWAY? ?
S5	71211	S4(3N)(NETWORK? OR NET()WORK? ? OR EXTRANET? OR INTERNET? ? OR INTRANET? OR VLAN? ? OR VPN? ? OR LAN OR LANS OR WAN OR W-ANS OR WLAN OR WLANS)
S6	35923	BASELINE? ? OR BASE()LINE? ? OR BENCHMARK? OR BENCH()MARK? ? OR YARDSTICK? OR YARD()STICK? ? OR TOUCHSTONE? OR TOUCH()ST-ONE? ? OR TEMPLATE?
S7	3147	(OPTIMAL OR OPTIMUM?)(2W)S4
S8	11	S3 AND S7
S9	11	IDPAT (sorted in duplicate/non-duplicate order)
S10	10	IDPAT (primary/non-duplicate records only)
S11	5448	(OPTIMIS? OR OPTIMIZ? OR BEST OR EFFICIEN?)(2W)S4
S12	6	S3 AND S11
S13	5	S12 NOT S8
S14	5	IDPAT (sorted in duplicate/non-duplicate order)
S15	5	IDPAT (primary/non-duplicate records only)
S16	3145	(EFFICACIOUS? OR EFFECTUAL? OR EFFECTIVE?)(2W)S4
S17	1	S3 AND S16
S18	1	S17 NOT (S15 OR S8)

014254218   **Image available**
WPI Acc No: 2002-074918/200210
Related WPI Acc No: 2002-225528
XRPX Acc No: N02-055303
  **Optimized path determination for packet switched computer based
  communications network, by measuring cost for default path, measuring
  costs for alternative paths and determining** optimum   path **by** cost
  comparison
Patent Assignee: DIGITAL ISLAND INC (DIGI-N)
Inventor: RICCIULLI L
Number of Countries: 094 Number of Patents: 008
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200079730	A2	20001228	WO 2000US16732	A	20000616	200210	B
US 20020018449	A1	20020214	US 99336487	A	19990618	200214	
			US 2001888966	A	20010625		
			US 2001916628	A	20010727		
AU 200056209	A	20010109	AU 200056209	A	20000616	200216	
US 6275470	B1	20010814	US 99336487	A	19990618	200216	
EP 1188280	A2	20020320	EP 2000941508	A	20000616	200227	
			WO 2000US16732	A	20000616		
US 6473405	B2	20021029	US 99336487	A	19990618	200274	
			US 2001888966	A	20010625		
JP 2003502941	W	20030121	WO 2000US16732	A	20000616	200308	
			JP 2001504633	A	20000616		
US 20040022194	A1	20040205	US 2001916628	A	20010727	200416	N
			US 2003630559	A	20030730		

Priority Applications (No Type Date): US 99336487 A 19990618; US 2001888966
  A 20010625; US 2001916628 A 20010727; US 2003630559 A 20030730
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200079730	A2	E	33	H04L-012/00	

    Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY CA CH
    CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE
    KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU
    SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
    Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
    IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW

US 20020018449	A1			H04L-012/16	Cont of application US 99336487
					Cont of application US 2001888966
					Cont of patent US 6275470
AU 200056209	A			H04L-012/00	Based on patent WO 200079730
US 6275470	B1			H04L-012/26	
EP 1188280	A2	E		H04L-012/56	Based on patent WO 200079730

    Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
    LI LT LU LV MC MK NL PT RO SE SI

US 6473405	B2			H04L-012/26	Cont of application US 99336487
					Cont of patent US 6275470
JP 2003502941	W		39	H04L-012/56	Based on patent WO 200079730
US 20040022194	A1			H04J-003/14	Cont of application US 2001916628

Abstract (Basic): WO 200079730 A2
        NOVELTY - The optimized path determination method involves
    measuring a cost for using a default path, measuring the costs for
    alternative paths and determining the **optimum path** by **cost
    comparison** .

DETAILED DESCRIPTION - The cost for the use of the default path from source to destination is measured in response to a request, and is derived by one or more existing routing mechanisms of the communications network. The costs of using alternative paths are measured for paths that pass through one or more intermediate nodes not on the default path. The **cost comparisons** are made between the default path cost, and the alternative path costs. INDEPENDENT CLAIMS are included for an overlay network apparatus for determining an optimized path, for an apparatus which conducts an electronic commerce transaction, and for a method of exchanging a message and a reply between a source and a destination.

USE - For transmitting a message form a source to a destination within a packet switched computer based communications network.

ADVANTAGE - Provides for accurate determination of an **optimum** transmission **path** for transmitting data from a source to a destination, based on cost.

DESCRIPTION OF DRAWING(S) - The figure shows a flow chart illustrating the basic steps in the optimized path determination.

User request (200)
Default path costing (210)
Comparison to threshold (215)
Measure cost on path via overlay node (220)
Evaluate additional overlay paths (225)
Select optimized path (230)
pp; 33 DwgNo 2/5

Title Terms: OPTIMUM; PATH; DETERMINE; PACKET; SWITCH; COMPUTER; BASED; COMMUNICATE; NETWORK; MEASURE; COST; DEFAULT; PATH; MEASURE; COST; ALTERNATIVE; PATH; DETERMINE; OPTIMUM; PATH; COST; COMPARE

Derwent Class: T01; W01

International Patent Class (Main): H04J-003/14; H04L-012/00; H04L-012/16; H04L-012/26; H04L-012/56

International Patent Class (Additional): G06F-015/173; H04Q-011/00

File Segment: EPI

Manual Codes (EPI/S-X): T01-N02A3B; W01-A03B; W01-A06G2

10/9/3   (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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013016554   **Image available**
WPI Acc No: 2000-188405/200017
XRPX Acc No: N00-139914
   ISDN router for communication path selection compares   fee **of**
   alternate route of newly connected other party via existing network with
   fee of direct path of newly connected other party
Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU)
Number of Countries: 001 Number of Patents: 001
Patent Family:
Patent No   Kind   Date   Applicat No   Kind   Date   Week
JP 2000032063 A   20000128 JP 98195387   A   1998071   200017 B

Priority Applications (No Type Date): JP 98195387 A 19980710
Patent Details:
Patent No Kind Lan Pg   Main IPC   Filing Notes
JP 2000032063 A   7 H04L-012/66

Abstract (Basic): JP 2000032063 A
     NOVELTY - The trunk code of ISDN number of newly connected other party is compared with trunk code of existing network relay point. If they coincide, then fee of alternate route connected to newly connected

other party via existing network, and fee of direct path connected to newly connected other party directly are **compared** . DETAILED DESCRIPTION - If **fee** of alternate route is lowered than fee of direct route, the alternate route is chosen. An INDEPENDENT CLAIM is also included for the communication path selection procedure.

USE - For **optimum** communication **path** selection to connect several networks.

ADVANTAGE - Chooses **optimum** communication **path** in terms of communication cost. DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of ISDN system with ISDN router.

Dwg.1/3

Title Terms: ISDN; ROUTER; COMMUNICATE; PATH; SELECT; COMPARE; FEE; ALTERNATE; ROUTE; NEW; CONNECT; PARTY; EXIST; NETWORK; FEE; DIRECT; PATH; NEW; CONNECT; PARTY
Derwent Class: W01
International Patent Class (Main): H04L-012/66
International Patent Class (Additional): H04L-012/02; H04L-012/14; H04L-012/28; H04L-012/46; H04M-003/00; H04M-015/16
File Segment: EPI
Manual Codes (EPI/S-X): W01-A06; W01-A06G3; W01-C06

10/9/7   (Item 7 from file: 347)
DIALOG(R)File 347:JAPIO

06658015   **Image available**
WIRING OF SEMICONDUCTOR INTEGRATED CIRCUIT

PUB. NO.:   2000-243838 [JP 2000243838 A]
PUBLISHED: September 08, 2000 (20000908)
INVENTOR(s):   YAMAWAKI MASAHIRO
APPLICANT(s): NEC CORP
APPL. NO.:   11-039032 [JP 9939032]
FILED: February 17, 1999 (19990217)
INTL CLASS: H01L-021/82

ABSTRACT
PROBLEM TO BE SOLVED: To make it possible to easily design a wiring to satisfy an antenna rule by a method wherein the wiring routes between terminals are searched on the basis of a constraint, the costs of the wiring routes are calculated on the basis of a prescribed **cost evaluation** formula and the wiring route, which is lowest in cost, is selected.

SOLUTION: In this wiring method, first, wiring lattices, wiring regions, a wiring object layer ZMAX which is used for wirings, and a **cost evaluation** formula for wiring routes are set as the initialization (step 1000). Then connection object terminals are specified (step 1010) and the allowable value of the distance between the terminals and routing point regions are set from the values which are prescribed from the viewpoint of manufacture (step 1020). The distance between the connection object terminals is calculated (step 1030) and the distance between the terminals is compared with the allowable value (step 1040). Routing points are specified (step 1050) and the wiring routes are searched (step 1060). The costs for the wiring routes are calculated, the **optimum** wiring **route** is selected (step 1070) and a processing is finished (step 1080). Thereby, the wiring to satisfy an antenna rule can be easily realized.

04811173   **Image available**
METHOD AND DEVICE FOR PATH CALCULATION

PUB. NO.:   07-103773 [JP 7103773 A]
PUBLISHED: April 18, 1995 (19950418)
INVENTOR(s):   HASHIMOTO TAKEO
               NISHIMURA SHIGEKI
               NAKANO HIROYUKI
               HIRANO KAZUO
APPLICANT(s): SUMITOMO ELECTRIC IND LTD [000213] (A Japanese Company or
               Corporation), JP (Japan)
APPL. NO.:   05-248243 [JP 93248243]
FILED: October 04, 1993 (19931004)
INTL CLASS: [6] G01C-021/00; G06F-017/30
JAPIO CLASS: 46.1 (INSTRUMENTATION -- Measurement); 26.2 (TRANSPORTATION
               -- Motor Vehicles); 45.4 (INFORMATION PROCESSING -- Computer
               Applications)
JAPIO KEYWORD:R011 (LIQUID CRYSTALS); R108 (INFORMATION PROCESSING --
               Speech Recognition & Synthesis); R131 (INFORMATION PROCESSING
               -- Microcomputers & Microprocessers)
                              ABSTRACT

PURPOSE: To rewrite a total cost when it is smaller than an upper-limit
cost in searching a calculation end link and then abort searching
processing for the link of the total cost exceeding the upper-limit cost
thereafter for reducing calculation time.

CONSTITUTION: An **optimum** **path** is calculated by setting the calculation
start links to A->B and A->C and a calculation end link to B->F. A CPU
reads link data including a destination B from a disk and then creates a
link table and then sets the initial value of the total cost to the maximum
value. When the search continues and B->F is reached, the CPU judges that
the link B->F is the calculation end link and then **compares** the total
 cost with the upper-limit cost. Since the upper-limit cost initial value
is infinite, the upper-limit value is rewritten to the total cost. In this
manner, once the upper-limit cost is rewritten by a finite value, the
search for a connection link is aborted for the link of total cost
exceeding it, thus eliminating the need for meaningless search for link and
hence reducing path calculation time.

03753969   **Image available**
 OPTIMUM   **ROUTE**   SELECTING SYSTEM FOR FACSIMILE EQUIPMENT

PUB. NO.:   04-119069 [JP 4119069 A]
PUBLISHED: April 20, 1992 (19920420)
INVENTOR(s):   INOUE MASAYOSHI
APPLICANT(s): NEC CORP [000423] (A Japanese Company or Corporation), JP
               (Japan)
APPL. NO.:   02-238249 [JP 90238249]
FILED: September 07, 1990 (19900907)
INTL CLASS: [5] H04N-001/34; H04M-011/00; H04N-001/00; H04N-001/32

ABSTRACT

PURPOSE: To use the most inexpensive line by letting an **optimum   route**
selecting part calculate communication time from the used quantity of a
memory, and obtain the most inexpensive route by calculating and comparing
the telephone charge of every company, and obtain and send a dial number to
be sent.

CONSTITUTION: A selection processing part 22 calculates the communication
fee of every company from **fee   comparing** standard time calculated by a
communication time calculating part 21 from the dial number of a
communicating destination and the used quantity of a picture memory sent
from a control part 1, installing place information 23, and air-to-ground
information 24, and **compares** the **fee** of every company, and selects the
most inexpensive company as the **optimum   route** , and converts it into the
dial number to be sent, and sends it to a dial sending part 61. The sending
part 61 receives the dial number from the **optimum   route** selecting part
2, and converts it into a dial signal, and sends it to a line L. Then, when
it receives the answer of the remote party, it lays down a relay S 63 to a
'2' side, and modulates picture data stored in the picture memory part 4 by
a MODEM part 5, and sends it, and after the finish of transmission, it
restores the line, and finishes the transmission.

10/9/10   (Item 10 from file: 347)
DIALOG(R)File 347:JAPIO
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03585337   **Image available**
DATA BASE MANAGEMENT SYSTEM CONSTRUCTING SYSTEM

ABSTRACT

PURPOSE: To easily construct a data base management system by using
fundamental data base processing parts.

CONSTITUTION: A syntax analyzing parts 32 request a phrasing management
parts 2 to check phrasing and use a syntax tree management parts 3 to
generate a syntax tree A18. Semantic analysis parts 33 use parts 3 to
acquire information from the syntax tree A18 and use schema management
parts 4 to check whether information coincides with definition information
of data or not. Next, parts 3 are used to generate a syntax tree B19.
Optimizing parts 34 use parts 3 to acquire information from the syntax tree
B19 and use access management parts 5 to **evaluate** the **cost** for data
access and determine an **optimum** access **route** . Parts 3 are used again to

generate a syntax tree C20. Plan generating parts 35 use parts 3 to acquire information from the syntax tree C20 and use plan management parts 6 to generate a plan tree 23. The plan tree 23 is inputted to plan executing parts 36, and parts 36 request parts 6 to execute an instruction string 24 corresponding to the plan tree 23.

014816236   **Image available**
WPI Acc No: 2002-636942/200268
XRPX Acc No: N02-503181
   Efficient   path **learning for use in a communications network, uses
   nodes capable of determining communication paths or routes from
   themselves to as many other nodes as possible**
Patent Assignee: TELEPHONICS WIRELESS CORP (TELE-N); CHAFFEE D (CHAF-I);
   D'AGATI L (DAGA-I); MATTHEWS G (MATT-I)
Inventor: CHAFFEE D; D'AGATI L; MATTHEWS G
Number of Countries: 092 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200273354	A2	20020919	WO 2002US7255	A	20020311	200268	B
US 20020186665	A1	20021212	US 2001808635	A	20010314	200301	
EP 1368941	A2	20031210	EP 2002719185	A	20020311	200382	
			WO 2002US7255	A	20020311		

Priority Applications (No Type Date): US 2001808635 A 20010314
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200273354	A2	E	48	G06F-000/00	

   Designated States (National): AE AG AL AU BA BB BG BR BZ CA CN CO CR CU
   CZ DM DZ EC EE GD GE HR HU ID IL IN IS JP KR LC LK LR LT LV MA MG MK MN
   MX MZ NO NZ OM PH PL RO RU SG SI SK TN TR TT TZ UA US UZ VN YU ZA
   Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
   IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

US 20020186665	A1			H04L-012/28	
EP 1368941	A2	E		H04L-012/56	Based on patent WO 200273354

   Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
   LI LT LU LV MC MK NL PT RO SE SI TR

Abstract (Basic): WO 200273354 A2
     NOVELTY - In a network comprising a plurality of nodes (A-N), each
   node includes memory and computing capability allowing it to determine
   communication paths or routes from itself to as many other nodes as
   possible, either directly or through other nodes, in order to complete
   the network. Paths are evaluated, according to selected criteria, as
   new data is generated, to identify **best paths** , which are stored and
   used when required.
     DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a
   method of transmitting a communication from a source node to a
   destination node in a network having a plurality of nodes.
     USE - For use in communication networks.
     ADVANTAGE - The memory and computational power in each node permits
   path selection to be based on a number of parameters, **evaluating** the
   total **cost** of communication from source to destination, which
   provides significantly better results than selection based on merely
   minimizing the number of relays or the path delay. The use of simple
   software protocols for controlling message traffic, that are concise
   enough without adding significant overhead, allows ad hoc
   communications among nodes in an ad hoc wireless network without regard
   to the proximity of the other members of the network. Volume of
   information required to be stored when a new node is added is reduced,
   since each node is no longer required to hold information about every
   other node in the network.
     DESCRIPTION OF DRAWING(S) - The figure is an example of paths
   through a network.

pp; 48 DwgNo 1/6
Title Terms: EFFICIENCY; PATH; LEARNING; COMMUNICATE; NETWORK; NODE;
  CAPABLE; DETERMINE; COMMUNICATE; PATH; ROUTE; NODE; POSSIBILITY
Derwent Class: T01
International Patent Class (Main): G06F-000/00; H04L-012/28; H04L-012/56
File Segment: EPI
Manual Codes (EPI/S-X): T01-J16C2; T01-N02A3B

   15/9/2   (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

014651090   **Image available**
WPI Acc No: 2002-471794/200250
XRPX Acc No: N02-372395
   Deriving set of efficient   path **costs for group of nodes of data**
   communication network to support quality of service over Internet
   communications according to bandwidth and delays
Patent Assignee: INT BUSINESS MACHINES CORP (IBMC   )
Inventor: BAUER D; DAIGLE J; ILIADIS I; SCOTTON P
Number of Countries: 097 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200243324	A2	20020530	WO 2001IB2078	A	20011112	200250	B
AU 200212596	A	20020603	AU 200212596	A	20011112	200263	
EP 1336274	A2	20030820	EP 2001980810	A	20011112	200362	
			WO 2001IB2078	A	20011112		
BR 200115551	A	20030819	BR 200115551	A	20011112	200367	
			WO 2001IB2078	A	20011112		
KR 2003059259	A	20030707	KR 2003706652	A	20030516	200377	

Priority Applications (No Type Date): EP 2000811104 A 20001121
Patent Details:
Patent No Kind Lan Pg   Main IPC   Filing Notes
WO 200243324 A2 E 36 H04L-012/18
   Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
   CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN
   IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
   PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
   Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
   IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
AU 200212596 A   H04L-012/18   Based on patent WO 200243324
EP 1336274   A2 E   H04L-012/18   Based on patent WO 200243324
   Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
   LI LT LU LV MC MK NL PT RO SE SI TR
BR 200115551 A   H04L-012/18   Based on patent WO 200243324
KR 2003059259 A   H04L-012/28

Abstract (Basic): WO 200243324 A2
      NOVELTY - A first data set in memory of the data processing system
   is recorded and the **best   path** cost is selected from the data set.
   The selected cost is recorded in a second data set in memory and the
   second data set is eliminated from the first data set. The cumulative
   path costs for direct paths to the destination node from any other node
   are recorded in the first data set and costs associated with the nodes
   in the data sets are **compared** . All **costs** are checked, and the
   efficient costs are recorded.
      DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for
      (1) a computer program element with code
      (2) apparatus for deriving a set of **efficient   path** costs for a

group of nodes
        USE - Deriving set of **efficient path** costs for group of data
    nodes.
        ADVANTAGE - Simpler and faster computation.
        DESCRIPTION OF DRAWING(S) - The drawing is a flow chart of the
    method.
        pp; 36 DwgNo 17/18
Title Terms: DERIVATIVE; SET; EFFICIENCY; PATH; COST; GROUP; NODE; DATA;
    COMMUNICATE; NETWORK; SUPPORT; QUALITY; SERVICE; COMMUNICATE; ACCORD;
    BANDWIDTH; DELAY
Derwent Class: T01; W01
International Patent Class (Main): H04L-012/18; H04L-012/28
International Patent Class (Additional): H04L-012/56
File Segment: EPI
Manual Codes (EPI/S-X): T01-N01A; T01-N02A3B; T01-S03; W01-A06E; W01-A06G5

    15/9/3   (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

014481943   **Image available**
WPI Acc No: 2002-302646/200234
XRPX Acc No: N02-236679
    **Call connection method used in telecommunication network, involves
    allocating bandwidth for call forwarding by** comparing **requested** cost
    and class of services, with bandwidth availability details
Patent Assignee: ANIP INC (ANIP-N)
Inventor: MASHINSKY A
Number of Countries: 001 Number of Patents: 001
Patent Family:
Patent No   Kind Date   Applicat No   Kind   Date   Week
US 6343073   B1   20020129 US 972144   A   19971231 200234 B

Priority Applications (No Type Date): US 972144 A 19971231
Patent Details:
Patent No Kind Lan Pg   Main IPC   Filing Notes
US 6343073   B1   31 H04L-012/28

Abstract (Basic): US 6343073 B1
        NOVELTY - The cost call database containing cost and class of
    services requested by a user and bandwidth availability data in a
    database are compared, to allocate bandwidth for forwarding a call from
    a calling device (155) to a called device (160).
        DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the
    following:
        (a) Telecommunication traffic routing system;
        (b) Telecommunication traffic transmission method
        USE - For call connection between telephone, answering machine,
    facsimile in telecommunication networks e.g. ISDN.
        ADVANTAGE - The utilization efficiency of ISDN link is improved by
    dynamically allocating available bandwidth, hence cost **efficient
    routing** is enabled.
        DESCRIPTION OF DRAWING(S) - The figure shows a block diagram of
    communication system.
        Calling device (155)
        Called device (160)
        pp; 31 DwgNo 1A/15
Title Terms: CALL; CONNECT; METHOD; TELECOMMUNICATION; NETWORK; ALLOCATE;
    BANDWIDTH; CALL; FORWARDING; COMPARE; REQUEST; COST; CLASS; SERVICE;
    BANDWIDTH; AVAILABLE; DETAIL

15/9/5   (Item 5 from file: 347)

06473801   **Image available**
DEVICE AND METHOD FOR **EVALUATING** TRANSMISSION LINE NETWORK **COST** , RECORDING MEDIUM RECORDED WITH PROGRAM THEREFOR, AND TRANSMISSION ROUTE SETTING DEVICE

PUB. NO.:   2000-059376 [JP 2000059376 A]
PUBLISHED: February 25, 2000 (20000225)
INVENTOR(s): OTA SATOSHI
APPLICANT(s): NIPPON TELEGR & TELEPH CORP (NTT)
APPL. NO.:   10-223305 [JP 98223305]
FILED: August 06, 1998 (19980806)
INTL CLASS: H04L-012/28; H04L-012/56

ABSTRACT

PROBLEM TO BE SOLVED: To more exactly **evaluate** the **cost** performance of a transmission line network.

SOLUTION: This transmission line network **cost** **evaluating** device 20 is provided with a route setting part 31 for setting the paths of respective multiplex order groups, the setting spot of a transmission medium and route in a pipeline network so as to satisfy the requested demand path, thereby calculating the cost of equipments and obtaining the cost of the transmission line network. The route setting part 31 is composed of an initial route setting part for setting the route of the demand path into shortest route based on the physical distance of a pipeline on the transmission line network and setting a high speed multiplex order group path or the like for accommodating this route equally with the set shortest route of the demand path, pipeline distance correcting part for finding the efficiency of using the band of the transmission medium in the pipeline of the set route of the path and correcting the distance so as to extend the pipeline of low use **efficiency** , and **route** resetting part for setting the route of the demand path into shortest route based on the corrected pipeline distance and setting the high speed multiplex order group path or the like for accommodating this route equally with the set shortest route of the demand path.

18/9/1   (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

011638727   **Image available**
WPI Acc No: 1998-055635/199806
XRPX Acc No: N98-044138
  **Telecommunications cost optimisation device - uses network selection
  device for** evaluating **specific** cost **parameters for alternate
  telecommunications networks to select most cost-** effective   connection
  path
Patent Assignee: TRIPLE I GMBH TECH KOMMUNIKATIONSINTEGRA (TRIP-N)
Inventor: THIERBACH H
Number of Countries: 018 Number of Patents: 002
Patent Family:
Patent No   Kind   Date   Applicat No   Kind   Date   Week
EP 817458   A2   19980107   EP 97111316   A   19970704   199806 B
DE 19627287   A1   19980108   DE 1027287   A   19960706   199807

Priority Applications (No Type Date): DE 1027287 A 19960706
Cited Patents: No-SR.Pub
Patent Details:
Patent No   Kind Lan Pg   Main IPC   Filing Notes
EP 817458   A2 G   9 H04M-015/00
   Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LI LU
   MC NL PT SE
DE 19627287   A1   5 H04M-003/42

Abstract (Basic): EP 817458 A
     The telecommunications cost optimisation device uses a
   telecommunications device (3) which can be operated via a number of
   alternate telecommunications networks (GSM,ISDN), selected in
   dependence on the cost of the respective connection paths.
     The telecommunications device is coupled to a network selection
   device (1) **evaluating** the network specific **cost** parameters for each
   network to select the most cost- **effective   connection   path** .
        USE - E.g. for business or private telephone user.
        ADVANTAGE - Ensures cost-efficient use of alternate networks.
        Dwg.1/5
Title Terms: TELECOMMUNICATION; COST; OPTIMUM; DEVICE; NETWORK; SELECT;
   DEVICE; EVALUATE; SPECIFIC; COST; PARAMETER; ALTERNATE; TELECOMMUNICATION
   ; NETWORK; SELECT; COST; EFFECT; CONNECT; PATH
Derwent Class: W01
International Patent Class (Main): H04M-003/42; H04M-015/00
International Patent Class (Additional): H04L-012/00
File Segment: EPI
Manual Codes (EPI/S-X): W01-C02A1A; W01-C02A7; W01-C05B7; W01-C06
?

Set	Items	Description
S1	3623117	COMPARE? ? OR COMPARING OR COMPARISON?
S2	2030241	EVALUAT???? ?
S3	213808	S1:S2(3N)(COST OR COSTS OR COSTED OR COSTING? OR EXPENSE? ? OR EXPENDITURE? OR PRICE OR PRICES OR FEE OR FEES)
S4	4380525	CONNECT???? ? OR CONNECTIVIT? OR ROUTE OR ROUTES OR ROUTED OR ROUTING OR PATH? ? OR PATHWAY? ?
S5	654241	S4(3N)(NETWORK? OR NET()WORK? ? OR EXTRANET? OR INTERNET? ? OR INTRANET? OR VLAN? ? OR VPN? ? OR LAN OR LANS OR WAN OR W-ANS OR WLAN OR WLANS)
S6	610252	BASELINE? ? OR BASE()LINE? ? OR BENCHMARK? OR BENCH()MARK? ? OR YARDSTICK? OR YARD()STICK? ? OR TOUCHSTONE? OR TOUCH()ST-ONE? ? OR TEMPLATE?
S7	5044	(OPTIMAL OR OPTIMUM?)(2W)S4
S8	21	S3(S)S7
S9	4	S8/2001:2004
S10	17	S8 NOT S9
S11	11	RD (unique items)
S12	53940	(OPTIMIS? OR OPTIMIZ? OR BEST OR EFFICIEN? OR EFFICACIOUS? OR EFFECTUAL? OR EFFECTIVE?)(2W)S4
S13	70	S3(25N)S12
S14	8	S13/2001:2004
S15	60	S13 NOT (S14 OR S8)
S16	30	RD (unique items)

11/3,K/1   (Item 1 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2004 The Gale Group. All rts. reserv.

07517778   Supplier Number: 62927977   (USE FORMAT 7 FOR FULLTEXT)
Decision-support system.
Dey, Prasanta Kumar; Gupta, Soumitra Shankar
The Oil and Gas Journal, v98, n22, p68
May 29, 2000
Language: English   Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 3419

...   factors interactively. The system is demonstrated here through a
case study of route selection.
      A **cost** -benefit **comparison** of the shortest route (conventionally
selected) and **optimal   route** establishes the effectiveness of the model.
      Goals; mistakes
      Cross-country petroleum pipeline route selection is...

11/3,K/2   (Item 2 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2004 The Gale Group. All rts. reserv.

04279626   Supplier Number: 46270163   (USE FORMAT 7 FOR FULLTEXT)
Clear Process manages fine
InfoWorld, p091
April 1, 1996
Language: English   Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 1477

...   the entry of information, and we had to delete these manually.
    We used charts to **compare** the time and **cost** of a process taking
different paths. Clear Analyzer can also identify critical (the longest or
most costly) and **optimal** (most efficient) **paths** .
      Sometimes a process contains parallel tasks or actions that are
affected by probability -- conditions that...

11/3,K/4   (Item 4 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2004 The Gale Group. All rts. reserv.

02562414   Supplier Number: 43398018   (USE FORMAT 7 FOR FULLTEXT)
**SONET: BELLCORE TOOL MAKES PLANNING FOR SONET-BASED FIBER-OPTIC NETWORKS
   EASY, AFFORDABLE & RELIABLE**
EDGE, on & about AT&T, v7, n222, pN/A
Oct 26, 1992
Language: English   Record Type: Fulltext
Document Type: Newsletter; Trade
Word Count: 379

...   City area.
    The SONET Toolkit offers two utilities. The "Ring Analyzer" helps
experienced network planners **compare   costs** for SONET ring equipment.
SONET rings are networks that encircle an area such as a...

...fiber and associated electronics would be required for a SONET ring and
to create the **optimal routing** for the services carried on the ring
network.
     The second utility, the "Architecture Selector," helps...

11/3,K/7   (Item 1 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2004 The Gale Group. All rts. reserv.

08573110   SUPPLIER NUMBER: 18155241   (USE FORMAT 7 OR 9 FOR FULL TEXT)
Clear Process manages fine. (Update) (Software Review)(Evaluation)
Heck, Mike
InfoWorld, v18, n14, p91(1)
April 1, 1996
DOCUMENT TYPE: Evaluation   ISSN: 0199-6649   LANGUAGE: English
RECORD TYPE: Fulltext; Abstract
WORD COUNT: 1509   LINE COUNT: 00130

...   taking different paths. Clear Analyzer can also identify critical
(the longest or most costly) and **optimal** (most efficient) **paths** .
     Sometimes a process contains parallel tasks or actions that are
affected by probability -- conditions that...

11/3,K/8   (Item 2 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2004 The Gale Group. All rts. reserv.

07191203   SUPPLIER NUMBER: 15065064   (USE FORMAT 7 OR 9 FOR FULL TEXT)
**SDH: Bellcore tool makes planning for SDH-based fiber-optic networks easy,
  affordable & reliable. (Synchronous Digital Hierarchy) (SDH Toolkit
  network planning software) (Product Announcement)**
EDGE, on & about AT&T, v9, n288, p7(1)
Jan 31, 1994
DOCUMENT TYPE: Product Announcement   LANGUAGE: ENGLISH
RECORD TYPE: FULLTEXT
WORD COUNT: 385   LINE COUNT: 00033

...   electronics would be required for SDH rings of all possible
architectures, and to create the **optimal routing** for the services
carried on the ring network.
     The second utility, the "Architecture Selector," helps...

11/3,K/10   (Item 2 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
(c) 2004 The Gale Group. All rts. reserv.

01053269   SUPPLIER NUMBER: 00554372
PABX - Hub of Developing Offices.
Wallace, L.
Modern Office, v23, n2, p10-12
March, 1984
ISSN: 0047-7737   LANGUAGE: ENGLISH   RECORD TYPE: ABSTRACT

...ABSTRACT: to stored-program computerized systems. These third
generation PABX systems can monitor use and provide **optimum route**
selection. Fourth generation microprocessor controlled PABXs will permit
digitized voice and data transmission. These technological...

...for PABX systems should include upgrading capability, management
control, user friendly functions, and monitoring for **cost** -effectiveness.
A chart **comparing** the features of models from eight companies is shown.

11/3,K/11   (Item 1 from file: 636)
DIALOG(R)File 636:Gale Group Newsletter DB(TM)
(c) 2004 The Gale Group. All rts. reserv.

03144830   Supplier Number: 46435563 (USE FORMAT 7 FOR FULLTEXT)
POW! DISTRIBUTION: Flowcharting & spreadsheet combined for powerful process
  analysis tool
M2 Presswire, pN/A
June 3, 1996
Language: English   Record Type: Fulltext
Document Type: Newswire; Trade
Word Count: 792

   (USE FORMAT 7 FOR FULLTEXT)
TEXT:
...various scenarios by selecting the automatic path generation feature.
CLEAR Process identifies the critical and **optimal   paths** , allowing the
user to see all the possible outcomes. If a certain flow path appears...

...make the system more efficient, such as turnaround time, distribution
and fulfillment options and material **costs** . Customers can then **evaluate**
alternatives and find the optimal one based on the most important criteria.
Using CLEAR Process...

16/3,K/24   (Item 1 from file: 275)

02277624   SUPPLIER NUMBER: 54082324   (USE FORMAT 7 OR 9 FOR FULL TEXT)
Tales of the DB2 Optimizer.(Product Support)(Tutorial)
Baker, Bonnie
Intelligent Enterprise, 2, 4, 57(1)
March 9, 1999
DOCUMENT TYPE: Tutorial   LANGUAGE: English   RECORD TYPE: Fulltext;
  Abstract
WORD COUNT: 2254   LINE COUNT: 00166

...   SQL, weighs relevant statistics in the catalog, and determines what
indexes are available. After much **cost** analysis and timeron **comparison** ,
it comes up with the **best** available access **path** to get the information
you requested. It thinks it knows where you wanted to end...
?t16/3,k/26-27

16/3,K/26   (Item 3 from file: 275)

01448098   SUPPLIER NUMBER: 11203427   (USE FORMAT 7 OR 9 FOR FULL TEXT)
**Expanding a hierarchy. (how Microsoft SQL Server handles multilevel
  relationships in data base tables) (tutorial)**
Vicik, Rick
DBMS, v4, n10, p68(2)
Sept, 1991
DOCUMENT TYPE: tutorial   ISSN: 1041-5173   LANGUAGE: ENGLISH
RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 2475   LINE COUNT: 00230

...   route.
     Also, to find the lowest-cost route whenever the destination is
reached, you could **compare** the total **cost** with the best cost so far:
     SELECT @cost=SUM (cost) FROM #list IF @cost<@lowest cost BEGIN @lowest
cost = @cost TRUNCATE TABLE # **best** **route** INSERT # **best** **route** SELECT *
FROM #list END
     For greater efficiency, stop expanding the current route if the cost
...

16/3,K/27   (Item 1 from file: 621)

01129715   Supplier Number: 41059455 (USE FORMAT 7 FOR FULLTEXT)
**IDT SHIPS MacStation (TM) DEVELOPMENT SYSTEM; Converts Macintosh II Into
  R3000/R3001 Software Development Workstation**
News Release, p1
Dec 11, 1989
Language: English   Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 502

...   IDT UNlX (R) and 'C' Compiler, the
     IDT7RS501 provides embedded control designers with the most **cost -
     effective** **path** to **evaluate** and design with high-performance
     R3000/R3001 RISC architecture.

     The MacStation allows convenient program generation...
?

```
File 256:SoftBase:Reviews,Companies&Prods. 82-2004/Mar
         (c)2004 Info.Sources Inc
File   2:INSPEC 1969-2004/Mar W4
         (c) 2004 Institution of Electrical Engineers
File   6:NTIS 1964-2004/Apr W1
         (c) 2004 NTIS, Intl Cpyrght All Rights Res
File   8:Ei Compendex(R) 1970-2004/Mar W4
         (c) 2004 Elsevier Eng.  Info. Inc.
File  34:SciSearch(R) Cited Ref Sci 1990-2004/Mar W4
         (c) 2004 Inst for Sci Info
File  35:Dissertation Abs Online 1861-2004/Mar
         (c) 2004 ProQuest Info&Learning
File  65:Inside Conferences 1993-2004/Apr W1
         (c) 2004 BLDSC all rts. reserv.
File  94:JICST-EPlus 1985-2004/Mar W3
         (c)2004 Japan Science and Tech Corp(JST)
File  95:TEME-Technology & Management 1989-2004/Mar W3
         (c) 2004 FIZ TECHNIK
File  99:Wilson Appl. Sci & Tech Abs 1983-2004/Feb
         (c) 2004 The HW Wilson Co.
File 111:TGG Natl.Newspaper Index(SM) 1979-2004/Apr 06
         (c) 2004 The Gale Group
File 144:Pascal 1973-2004/Mar W4
         (c) 2004 INIST/CNRS
File 202:Info. Sci. & Tech. Abs. 1966-2004/Feb 27
         (c) 2004 EBSCO Publishing
File 233:Internet & Personal Comp. Abs. 1981-2003/Sep
         (c) 2003 EBSCO Pub.
File 266:FEDRIP 2004/Feb
         Comp & dist by NTIS, Intl Copyright All Rights Res
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 1998 Inst for Sci Info
File 483:Newspaper Abs Daily 1986-2004/Apr 05
         (c) 2004 ProQuest Info&Learning
File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13
         (c) 2002 The Gale Group
File 603:Newspaper Abstracts 1984-1988
         (c)2001 ProQuest Info&Learning


Set     Items    Description
S1    5960443    COMPARE? ? OR COMPARING OR COMPARISON?
S2    4117853    EVALUAT???? ?
S3      81255    S1:S2(3N)(COST OR COSTS OR COSTED OR COSTING? OR EXPENSE? ?
                 OR EXPENDITURE? OR PRICE OR PRICES OR FEE OR FEES)
S4    2929455    CONNECT???? ? OR CONNECTIVIT? OR ROUTE OR ROUTES OR ROUTED
                 OR ROUTING OR PATH? ? OR PATHWAY? ?
S5     119229    S4(3N)(NETWORK? OR NET()WORK? ? OR EXTRANET? OR INTERNET? ?
                 OR INTRANET? OR VLAN? ? OR VPN? ? OR LAN OR LANS OR WAN OR W-
                 ANS OR WLAN OR WLANS)
S6     471775    BASELINE? ? OR BASE()LINE? ? OR BENCHMARK? OR BENCH()MARK?
                 ? OR YARDSTICK? OR YARD()STICK? ? OR TOUCHSTONE? OR TOUCH()ST-
                 ONE? ? OR TEMPLATE?
S7      12572    (OPTIMAL OR OPTIMUM?)(2W)S4
S8      22458    (OPTIMIS? OR OPTIMIZ? OR BEST OR EFFICIEN? OR EFFICACIOUS?
                 OR EFFECTUAL? OR EFFECTIVE?)(2W)S4
S9         39    COSTBENEFIT? OR COSTEFFICIEN?
S10       134    S3(S)S7:S8
S11         0    S9(S)S7:S8
S12        41    S10/2001:2004
S13        93    S10 NOT S12
```

14/7/3   (Item 3 from file: 2)
DIALOG(R)File   2:INSPEC
(c) 2004 Institution of Electrical Engineers. All rts. reserv.

6590420   INSPEC Abstract Number: C2000-06-5220P-041
  Title: **Hierarchical   interconnection   networks with folded hypercubes as basic clusters**
  Author(s): Yuntao Shi; Zifeng Hou; Jianping Song
  Author Affiliation: Inst. of Comput. Technol., Acad. Sinica, China
  Conference Title: Proceedings Fourth International Conference/Exhibition on High Performance Computing in the Asia-Pacific Region   Part vol.1 p.134-7 vol.1
  Publisher: IEEE Comput. Soc, Los Alamitos, CA, USA
  Publication Date: 2000 Country of Publication: USA   2 vol. xxiv+1179 pp.
  ISBN: 0 7695 0589 2   Material Identity Number: XX-2000-00916
  U.S. Copyright Clearance Center Code: 0 7695 0589 2/2000/$10.00
  Conference Title: Proceedings Fourth International Conference/Exhibition on High Performance Computing in the Asia-Pacific Region
  Conference Date: 14-17 May 2000   Conference Location: Beijing, China
  Language: English   Document Type: Conference Paper (PA)
  Treatment: Practical (P)

  Abstract: The paper introduces a class of hierarchical interconnection networks, which is suitable for multicomputer systems. These networks, to which we give the name HFCube, employ the folded hypercube as a basic cluster, connect many such clusters using a complete graph, and maintain node connectivity to be the same for all nodes of the graph. We present all **optimal   routing** algorithms for the HFCube. In addition, we investigate the properties of the HFCube and show that the HFCube exhibits **cost** effectiveness, **compared** to other hierarchical networks. (8 Refs)
  Subfile: C

14/7/4   (Item 4 from file: 2)
DIALOG(R)File   2:INSPEC
(c) 2004 Institution of Electrical Engineers. All rts. reserv.

6463957   INSPEC Abstract Number: B2000-02-8120J-029
  Title: **Optimal   routing of distribution network considering reliability indices**
  Author(s): Dong-Joon Shin; Pyung-Kweon Roh; Jin-O Kim
  Journal: Transactions of the Korean Institute of Electrical Engineers, A
    vol.48, no.9   p.1073-80
  Publisher: Korean Inst. Electr. Eng,
  Publication Date: Sept. 1999 Country of Publication: South Korea
  CODEN: CHNODD ISSN: 1229-2443
  SICI: 1229-2443(199909)48:9L.1073:ORDN;1-T
  Material Identity Number: H329-1999-009
  Language: Korean   Document Type: Journal Paper (JP)
  Treatment: Economic aspects (E); Theoretical (T)

  Abstract: **Optimal   routing** of distribution networks can be attained by keeping the line power capacity limit to handle load requirements, acceptable voltage at customer loads, and the reliability indices such as SAIFI, SAIDI, CAIDI and ASAI limits. This method is composed of optimal loss reduction and optimal reliability cost reduction. The former is related to the conductor resistance of all alternative routes, and the latter is solved relating to the failure rate duration of each alternative

route. The routing considering optimal loss only and both optimal loss and optimal reliability **cost** are **compared** in this paper. The case studies with 10 and 24 bus distribution networks showed that reliability cost should be considered as well as loss reduction to achieve the **optimal routing** in the distribution networks. (9 Refs)
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  14/7/5   (Item 5 from file: 2)
DIALOG(R)File   2:INSPEC
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6429806   INSPEC Abstract Number: C2000-01-3360B-010
  Title: **Decision support and artificial intelligence in GIS: overview and applications**
  Author(s): Tzafestas, S.G.; Laliotis, L.N.; Protonotarios, M.
  Author Affiliation: Div. of Comput. Sci., Nat. Tech. Univ. of Athens, Greece
  Conference Title: Control Applications and Ergonomics in Agriculture (CAEA'98). Proceedings volume from the IFAC Workshop   p.53-60
  Editor(s): Sigrimis, N.; Groumpos, P.
  Publisher: Elsevier Sci, Kidlington, UK
  Publication Date: 1999 Country of Publication: UK   viii+343 pp.
  ISBN: 0 08 043229 8   Material Identity Number: XX-1999-01011
  Conference Title: Proceedings of Control Applications and Ergonomics in Agriculture
  Conference Sponsor: IFAC; Commission Int. Genie Rural; Eur. Soc. Agric. Eng
  Conference Date: 14-17 June 1998   Conference Location: Athens, Greece
  Language: English   Document Type: Conference Paper (PA)
  Treatment: Applications (A); Practical (P)
  Abstract: In this paper, an overview of DSS and AI issues applied to geographical information systems (GIS) is provided. The fundamental concepts and components involved in these systems are included. along with the major problems where they can be profitably used. Four particular real-life applications (case studies) are outlined. These are: 1) the Athens real-time traffic congestion system, 2) the **best route** facility, 3) the route **cost comparing** system, and 4) the traffic pre-emption system. The paper concludes with a discussion on the capabilities of GIS enhanced with DSS and AI functions. (18 Refs)
  Subfile: C
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  14/7/12   (Item 12 from file: 2)
DIALOG(R)File   2:INSPEC
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5347345   INSPEC Abstract Number: C9609-3360J-061
  Title: **A motion planning method for an AUV**
  Author(s): Arinaga, S.; Nakajima, S.; Okabe, H.; Ono, A.; Kanayama, Y.
  Author Affiliation: Mitsubishi Heavy Ind. Ltd., Nagasaki, Japan
  Conference Title: Proceedings of the 1996 Symposium on Autonomous Underwater Vehicle Technology (Cat. No.96CH35900)   p.477-84
  Publisher: IEEE, New York, NY, USA
  Publication Date: 1996 Country of Publication: USA   492 pp.
  ISBN: 0 7803 3185 0   Material Identity Number: XX96-00974
  U.S. Copyright Clearance Center Code: 0 7803 3185 0/96/$5.00
  Conference Title: Proceedings of Symposium on Autonomous Underwater

Vehicle Technology
   Conference Sponsor: Oceanic Eng. Soc. IEEE
   Conference Date: 2-6 June 1996   Conference Location: Monterey, CA, USA
   Language: English   Document Type: Conference Paper (PA)
   Treatment: Theoretical (T); Experimental (X)

   Abstract: The authors have been developing an underwater vehicle
"Umihico" that autonomously plans and executes given missions. This paper
discusses the problem of finding an optimal motion plan for an AUV. The
proposed motion planning algorithm is divided into two steps, the global
path planning and the local motion planning steps. In the global path
planning step, we first define a connectivity graph to **evaluate** the **cost**
 of each path class. Next we apply the Dijkstra's algorithm or the
all-pairs cost algorithm to the graph to find the **optimal** (minimum cost)
 path   class. In the local motion planning step, a smooth path segment
which connects two configurations in the **optimal** **path** class in each
region is computed. If there are any obstacles, the local motion planning
algorithm will plan and execute an obstacle avoiding action. The
effectiveness and robustness of the solution algorithm are verified through
simulation. (18 Refs)
   Subfile: C

   14/7/13   (Item 13 from file: 2)

5260921   INSPEC Abstract Number: B9606-6150P-017
   Title: Cost comparison of STM and ATM path networks
   Author(s): Hadama, H.; Izaki, T.; Tokizawa, I.
   Author Affiliation: NTT Opt. Network Syst. Labs., Yokosuka, Japan
   Journal: IEICE Transactions on Communications   vol.E79-B, no.3   p.
378-83
   Publisher: Inst. Electron. Inf. & Commun. Eng,
   Publication Date: March 1996 Country of Publication: Japan
   CODEN: ITCMEZ   ISSN: 0916-8516
   SICI: 0916-8516(199603)E79B:3L.378:CCPN;1-9
   Material Identity Number: P711-96005
   Language: English   Document Type: Journal Paper (JP)
   Treatment: Economic aspects (E); Practical (P)
   Abstract: In order to pave the way to B-ISDN, one of the most important
issues for network providers is to identify the most efficient B-ISDN
introduction strategy. This paper focuses on the costs of introducing ATM
transmission systems into backbone transport networks which must provide
highly reliable broadband transmission capability. In this context, the
main rival to ATM is synchronous transfer mode (STM). Recent synchronous
digital hierarchy (SDH) equipment supports the establishment of advanced
STM-based high speed transport networks. This paper offers a **cost**
 comparison of ATM and STM based backbone transport networks. A digital
path network in STM has a hierarchical structure determined by the
hierarchical multiplexing scheme employed. The minimum cost STM path
network can only be determined by developing a path design method that
considers all hierarchical path levels and yields the optimum balance of
link cost and node cost. Virtual paths have desirable features such as
non-deterministic path bandwidth and non-hierarchical and direct
multiplexing capability into high speed optical transmission links. These
features make it possible to implement a non-hierarchical VP network with
ATM crossconnect systems which can handle any bandwidth VP with a universal
cell switching function. This paper shows that non-hierarchical VP routing,
which strongly minimizes link cost, can be implemented without
significantly increasing node cost. Network design simulations show that

the virtual path scheme, possible only in an ATM network, yields the most cost **effective path** network configuration. (8 Refs)
   Subfile: B
   Copyright 1996, IEE

   14/7/15   (Item 15 from file: 2)
DIALOG(R)File   2:INSPEC
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4881435   INSPEC Abstract Number: C9503-4230M-043
   Title: **Design and analysis of product networks**
   Author(s): Youssef, A.
   Author Affiliation: Dept. of Electr. Eng. & Comput. Sci., George Washington Univ., Washington, DC, USA
   p.521-8
   Publisher: IEEE Comput. Soc. Press, Los Alamitos, CA, USA
   Publication Date: 1994 Country of Publication: USA   xvi+539 pp.
   ISBN: 0 8186 6965 9
   U.S. Copyright Clearance Center Code: 0 8186 6965 9/95/$04.00
   Conference Title: Proceedings Frontiers '95. The Fifth Symposium on the Frontiers of Massively Parallel Computation
   Conference Sponsor: IEEE Comput. Soc. Tech. Committee on Comput. Archit.; NASA; Univ. Maryland Inst. Adv. Comput. Studies; George Mason Univ
   Conference Date: 6-9 Feb. 1995   Conference Location: McLean, VA, USA
   Language: English   Document Type: Conference Paper (PA)
   Treatment: Practical (P)
   Abstract: In this paper a unified theory of Cartesian product networks is developed. Product networks (PN) include meshes, tori, and hypercubes among others. This paper studies the fundamental issues of topological properties, cost-performance ratio **optimization** , scalability, **routing** , embedding, and fault tolerance properties of PNs. In particular, the degree, diameter, average distance, connectivity, and node-symmetry of PNs are related to those of their constituent factor networks. **Cost** /performance analysis and **comparison** between different PNs, especially n-dimensional meshes/tori and n-dimensional r-ary hypercubes, are conducted, and the optimal trade-off between the number of dimensions and the size along each dimension are identified. Fast generic algorithms for point-to-point routing, broadcasting and permuting on PNs are designed, making use of the corresponding algorithms of the factor networks. Finally, efficient embeddings on PNs are constructed for linear arrays, rings, meshes, tori and trees. (15 Refs)
   Subfile: C
   Copyright 1995, IEE

   14/7/17   (Item 17 from file: 2)
DIALOG(R)File   2:INSPEC
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4712191   INSPEC Abstract Number: C9409-5120-002
   Title: **Performance-driven technology mapping for field programmable gate arrays**
   Author(s): Chunghee Kim; Hyunchul Shin
   Journal: Journal of the Korea Information Science Society   vol.21, no.5 p.866-73
   Publication Date: May 1994 Country of Publication: South Korea
   CODEN: HJKHDC ISSN: 0258-9125
   Language: Korean   Document Type: Journal Paper (JP)
   Treatment: Practical (P)

Abstract: An effective optimization technique is developed for technology mapping of lookup table based field programmable gate arrays. In our algorithm, the minimal depth of a Boolean network is found and then the cost function is minimized by changing the levels of nodes without increasing the depth. **Optimization** for reconvergent **paths** and duplication of logic is automatically considered during the **cost evaluation** . Experimental results show that our approach produces the same depth for the 17 benchmark circuits tried as those of FlowMap which guarantees the optimum depth. Furthermore, the new method used 15% less number of LUTs than those of FlowMap on the average. (15 Refs)
Subfile: C

14/7/20   (Item 20 from file: 2)
DIALOG(R)File   2:INSPEC

03400415   INSPEC Abstract Number: C89041657
 Title: **Cost-benefit analysis with switching regimes: an application of the theory of planning**
   Author(s): Sheshinski, E.; Intriligator, M.D.
   Author Affiliation: Hebrew Univ., Jerusalem, Israel
   Abstract: An extension of **cost** -benefit analysis, which **evaluates** streams of future returns and costs, whether certain or uncertain, is presented which allows for internal **optimization** along the **path** , in particular, for optimization over the choice of processes at each instant, such as in the choice of alternative technologies. Application is made to the case of switching regimes, where it is possible to switch from one process to another but at a cost, such as in the choice of oil vs. nuclear technologies for electricity generation. Use is made of the authors' prior framework for planning theory, involving choices for the horizon and period and for event as well as time planning. The **optimal** **path** involves time planning in the case of certainty and event planning in the case of uncertainty. In the case of uncertainty the policy variables of the system are dependent both on time and on the state variables characterizing the system. One interpretation of the main result is that (s, S) inventory-type planning can be applied to the choice of alternative processes in the presence of discrete switching costs. Another interpretation is that of an extension of the Pigou point to dynamical systems. Three cases are treated: that of certainty, that of uncertainty, and that of learning from experience. (12 Refs)
   Subfile: C

14/7/23   (Item 23 from file: 2)
DIALOG(R)File   2:INSPEC

02110947   INSPEC Abstract Number: B83050939, C83034750
 Title: **Routing to multiple destinations in computer networks**
   Author(s): Bharath-Kumar, K.; Jaffe, J.M.
   Author Affiliation: IBM, Yorktown Heights, NY, USA
   Conference Title: Pathways to the Information Society. Proceedings of the

Sixth International Conference on Computer Communication   p.949-54
   Editor(s): Williams, M.B.
   Publisher: North-Holland, Amsterdam, Netherlands
   Publication Date: 1982 Country of Publication: Netherlands   xx+1018
pp.
   ISBN: 0 444 86464 4
   Conference Sponsor: Int. Council Comput. Comm
   Conference Date: 7-10 Sept. 1982   Conference Location: London, UK
   Language: English   Document Type: Conference Paper (PA)
   Treatment: Theoretical (T)
   Abstract: Algorithms for **effectively** **routing** messages from a source
to multiple destination nodes in a store-and-forward computer network are
studied. The focus is on minimizing the network cost (NC) which is the sum
of weights of the links in the routing path. This measure is **compared** to
the destination **cost** (DC) which is the sum of the shortest path distances
to all destinations. The two measures are shown to be quite different in
that the path with optimum DC may have a NC which is O(m) times worse than
the NC of the **optimum** NC **path** and vice versa, where m is the number of
destinations. A scheme of algorithms is given which trade off between NC
and DC. Several heuristic algorithms are examined for finding the NC
minimum path (which is an NP-complete problem). While the minimum spanning
tree algorithm has the best worst case performance among all algorithms, a
detailed, empirical study of the 'average' performance of the algorithms on
typical, randomly chosen networks reveals that simpler heuristics are
almost as effective. The empirical study also leads to an extensive set of
additional conclusions. (11 Refs)
   Subfile: B C
? t14/7/24-25,29-30,35-36,

   14/7/24   **(Item 24 from file: 2)**
DIALOG(R)File   2:INSPEC

01965142   INSPEC Abstract Number: C83002032
 Title: Distributed circuit switching Starnet
   Author(s): Chuan-lin Wu; Woei Lin; Min-Chang Lin
   Author Affiliation: Dept. of Electrical Engng., Univ. of Texas, Austin,
TX, USA
   Conference Title: Proceedings of the 1982 International Conference on
Parallel Processing   p.26-33
   Editor(s): Batcher, K.E.; Meilander, W.C.; Potter, J.L.
   Publisher: IEEE, New York, NY, USA
   Publication Date: 1982 Country of Publication: USA   x+370 pp.
   Conference Sponsor: Ohio State Univ.; IEEE
   Conference Date: 24-27 Aug. 1982   Conference Location: Bellaire, MI,
USA
   Language: English   Document Type: Conference Paper (PA)
   Treatment: Practical (P)
   Abstract: Starnet is a communication subnet which can cost- **effectively**
 connect   hundreds or thousands of processors for distributed processing.
It uses distributed control and circuit switching. Starnet's communication
medium includes two major components: a multistage interconnection network
and a set of interface units. The interconnection network uses a
destination routing scheme with no central control. The interface unit
provides handshaking between the computer/data node and the interconnection
network under the control of a microprocessor. Detailed design of the
communication medium is described. A model for **comparing** **cost**
-effectiveness among Starnet, crossbar and multiple buses is included. (7
 Refs)
   Subfile: C

14/7/25   (Item 25 from file: 2)
DIALOG(R)File   2:INSPEC
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00519779   INSPEC Abstract Number: C73013441
 Title: **Algorithm for synthesizing economical data communication network**
   Inventor(s): La Sharma, R.
   Assignee(s): Collins Radio Co
   Patent Number: US 3703006   Issue Date: 721114
   Application Date: 701028
   Priority Appl. Number: US 84690
   Country of Publication: USA
   Language: English   Document Type: Patent (PT)
   Treatment: Applications (A)
   Abstract: A technique for **optimizing** the **connections** of a plurality
of   stations   to   a   central   point   wherein   a   connection   link   has   a
predetermined maximum line weight and where optimum is defined as a
distance   related   cost   comprising   setting   up a trial configuration in a
computer   and   interchanging stations on adjacent links on a sequential and
selective basis and **comparing** the **cost** of each selection with the
previous lowest cost connection until a predetermined number of comparisons
and selections have been completed.
   Subfile: C

14/7/29   (Item 3 from file: 6)
DIALOG(R)File   6:NTIS
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1494115   NTIS Accession Number: NTN90-0124
   **Network-Control Algorithm: Channels are allocated optimally to links in a
multilink, multinode network**
   (NTIS Tech Note)
   National Aeronautics and Space Administration, Washington, DC.
   Corp. Source Codes: 011249000
   Feb 90   1p
   Languages: English
   Journal Announcement: GRAI9010
   FOR   ADDITIONAL   INFORMATION: Contact: NASA Technology Transfer Div., PO
Box 8757 BWI Airport, MD 21240; (301) 621-0100 ext 241. Refer to
NPO-17505/TN.
   NTIS Prices: Not available NTIS
   Country of Publication: United States
   This   citation summarizes a one-page announcement of technology available
for utilization. An algorithm has been developed for the **optimal   routing**
 of   packets   of   data   along   the   links   of   multilink,   multinode digital
communication   network.   The   algorithm   is   iterative   and   converges to a
cost-optimal   assignment that is independent of the initial assignment. The
network   is   assumed   to   have an arbitrary topology, in which each node is
connected   to   several   other nodes through full-duplex-multichannel links.
The   problem   is   to   determine   the   link   route   between   originating and
destination   nodes   and   the number of channels for packet-switched traffic
along   the route that minimize the cost, subject to the constraints imposed
by   the   maximum average allowable network delay. The algorithm begins with
the   selection   of an initial feasible flow vector, which characterizes the
link   route   and   the   flow.   The   gradient   of   the   cost   function in the
flow-vector   space   is   then computed and used to find the shortest path. A
flow-deviation   subalgorithm is then used to find the next iteration of the
feasible   flow   vector that minimizes the cost function. If the fraction of

the user demand that satisfies this flow vector can be increased, it is increased, and the resulting **cost** function is **evaluated** . The foregoing steps are repeated until the decrements of the cost function at an iteration become arbitrarily small, indicating the attainment of the global optimum. The number of channels in each link is then assigned according to the resulting flow vector.

14/7/30   (Item 4 from file: 6)
DIALOG(R)File   6:NTIS

1389283 NTIS Accession Number: DE88770190
  Optimal Planning Method of Underground Distribution System
  Fukutome, A. ; Yoshimitsu, T.
  Central Research Inst. of Electric Power Industry, Tokyo (Japan).
  Corp. Source Codes: 005875000; 1566500
  Report No.: CRIE-T-86072
  Aug 87   39p
  Languages: Japanese
  Journal Announcement: GRAI8822; NSA1300
  Paper copy only, copy does nott permit microfiche production. In Japanese.
  U.S. Sales Only. Paper copy only, copy does not permit microfiche production. Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.
  NTIS Prices: PC A03
  Country of Publication: Japan
  The underground distribution is recently made systematically, and the systematic method of underground distribution system suitable for the area in which a number of high tension and low tension power demand were complicated was developed by applying the network optimization method to utilize for the planning of the reasonable underground distribution. Topological characteristics of roads could be inputted very simply as the mapping informations and could be represented precisely as a network. Main parameters such as location of feed points etc. could be modified easily on the CRT display, through the discussion with designers. Detailed designs except main parameters were formulated as the problems to resolve **optimal** cable **route** , that is, the shortest path (or minimum cost) and determined automatically. Analysis and **evaluation** of the investment **cost** could be simplified. The effect was confirmed by the computerized simulation applying this model to a standard city block. (24 figs, 9 tabs, 2 refs). (ERA citation 13:036172)

14/7/35   (Item 9 from file: 6)
DIALOG(R)File   6:NTIS

0232539 NTIS Accession Number: AD-708 887/XAB
  Computation of Optimal Paths in Finite Graphs
  Gill, A. ; Traiger, I. L.
  California Univ Berkeley Electronics Research Lab
  Corp. Source Codes: 127550
  Report No.: AFOSR-70-1954TR
  1969   14p
  Document Type: Journal article
  Journal Announcement: USGRDR7017
  Pub. in Computing Methods in Optimization Problems, v2 p105-118 1969.

NTIS Prices: Not available NTIS
Contract No.: NONR-222(53); AF-AFOSR-639-67
The paper is concerned with finite, directed, branch-weighted graphs whose weights are real numbers having the general connotation of 'cost' -- such as distance, transit time, expense, etc. The problem is the computation and characterization of the sets of ' **optimal** ' **paths** of given length k greater than or equal to 1 which begin at the 'initial' vertex of the graph and exhibit the minimum average cost per branch. Thus, the optimality of a path of any length k emanating from the initial vertex is determined by a **cost - comparison** with other paths of the same length which also emanate from that vertex. (Author)

14/7/36   (Item 10 from file: 6)
DIALOG(R)File   6:NTIS
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0086172 NTIS Accession Number: AD-609 774/XAB
  Efficiency of a Routing Scheme in a Mobile Data Processing Communication Network
  Hamburger, P.
  Mitre Corp Bedford Mass
  Corp. Source Codes: 888888888
  Report No.: W-06390/0000/01/1/00; ESD-TDR64 635
  Dec 64   2p
  Journal Announcement: USGRDR6501
  Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.
  NTIS Prices: PC A02
  Contract No.: AF19 628 2390; 600 6
  This document examines the **efficiency** of a **routing** scheme for mobile communication nodes with data processing capability. Expressions for **evaluating** its **cost** in data rate as a function of the pertinent system variables are given. The data rate **cost** is **compared** with that of broadcasting all messages. (Author)
? t14/7/37,46,56,58

14/7/37   (Item 1 from file: 8)
DIALOG(R)File   8:Ei Compendex(R)
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05389321   E.I. No: E2099104847857
  Title: Decision support system for pipeline route selection
  Author: Dey, Prasanta Kumar; Gupta, Soumitra S.
  Source: Cost Engineering (Morgantown, West Virginia) v 41 n 10 1999. p 29-35
  Publication Year: 1999
  CODEN: CSTEDM   ISSN: 0274-9696
  Language: English
  Document Type: JA; (Journal Article)   Treatment: G; (General Review)
  Journal Announcement: 9911W4
  Abstract: Route selection for cross-country petroleum pipelines is governed by factors such as the shortest distance between supply and demand points, constructability, minimal effects on the environment, and approachability. These factors must be considered, along with strict government stipulations; expansion capability and the chances of pipeline failure also must be considered. A quantitative route selection methodology considers all of these, along with operability and maintainability factors.

This article establishes a decision support system (DSS) for pipeline route
selection with the application of analytical hierarchy process (AHP), a
multi-attribute decision-making technique. AHP takes into account all of
the factors interactively. This system is demonstrated here through a case
study of pipeline route selection, from an Indian perspective. A **cost**
-benefit **comparison** of the shortest route (conventionally selected) and
the **optimal route** establishes the effectiveness of the model. (Author
abstract) 10 Refs.

 14/7/46   (Item 10 from file: 8)
DIALOG(R)File   8:Ei Compendex(R)
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00271368   E.I. Monthly No: EI7212014205
  Title: **NETWORK EVALUATION OF COMPLEX TRANSPORTATION SYSTEMS**.
  Author: Smith, Keith V.; Phillips, Charles T.; Lewis, Ralph J.
  Corporate Source: Univ of California, Los Angeles
  Source: Transportation Research v 6 n 1 Mar 1972 p 103-111
  Publication Year: 1972
  CODEN: TRREBK   ISSN: 0041-1647
  Language: ENGLISH
  Journal Announcement: 7212
  Abstract: A model for evaluating transportation systems over an entire
network from the point of view of passenger users is explained. It is shown
how to build an impedance matrix that summarizes the relative merits,
across many attribute dimensions, of traveling on different links of a
total network and how a shortest-path algorithm can be applied to the
impedance matrix to determine the **optimal routing** for each
origin-destination pair in the network. Alternative approaches to combining
demand, user benefit and **cost** information for **evaluating** whole
transportation systems are discussed. 8 refs.

 14/7/56   (Item 2 from file: 94)
DIALOG(R)File   94:JICST-EPlus
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02739981   JICST ACCESSION NUMBER: 96A0353774   FILE SEGMENT: JICST-E
Cost Comparison of STM and ATM Path Networks.
HADAMA S (1); TOKIZAWA I (1); IZAKI T (2)
(1) NTT Optical Network Systems Lab., Yokosuka-shi, JPN; (2) NTT Kyushu
    Network Center, Fukuoka-shi, JPN
IEICE Trans Commun(Inst Electron Inf Commun Eng), 1996, VOL.E79-B,NO.3,
    PAGE.378-383, FIG.9, TBL.2, REF.8
JOURNAL NUMBER: L1369AAW   ISSN NO: 0916-8516
UNIVERSAL DECIMAL CLASSIFICATION: 621.394/.395
LANGUAGE: English   COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication
ABSTRACT: In order to pave the way to B-ISDN, one of the most important
    issues for network providers is to identify the most efficient B-ISDN
    introduction strategy. This paper focuses on the costs of introducing
    ATM transmission systems into backbone transport networks which must
    provide highly reliable broad band transmission capability. In this
    context, the main rival to ATM is Synchronous Transfer Mode (STM);
    recent Synchronous Digital Hierarchy (SDH) equipment supports the
    establishment of advanced STM-based high speed transport networks. This
    paper offers a **cost comparison** of ATM and STM based backbone

transport networks. A digital path network in STM has a hierarchical
structure determined by the hierarchical multiplexing scheme employed.
The minimum cost STM path network can only be determined by developing
a path design method that considers all hierarchical path levels and
yields the optimum balance of link cost and node cost. Virtual paths
have desirable features such as non-deterministic path bandwidth and
non-hierarchical and direct multiplexing capability into high speed
optical transmission links. These features make it possible to
implement a nonhierarchical VP network with ATM cross connect systems
which can handle any bandwidth VP with a universal cell switching
function. This paper shows that the non-hierarchical VP routing, which
strongly minimizes link cost, can be implemented without significantly
increasing node cost. Network design simulations show that the virtual
path scheme, possible only in an ATM network, yields the most cost
effective   path network configuration. (author abst.)

  14/7/58   (Item 4 from file: 94)
DIALOG(R)File   94:JICST-EPlus
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01003862   JICST ACCESSION NUMBER: 90A0377698   FILE SEGMENT: JICST-E
**Study on B-ISDN transport network architecture based on cross-connect
   technique.**
SUZUKI HIROSHI (1); HAYANO SHIN'ICHIRO (1); HASEGAWA SATOSHI (1); TAKEUCHI
   TAKAO (1)
(1) NEC Corp., C & C Systems Res. Labs.
Denshi Joho Tsushin Gakkai Gijutsu Kenkyu Hokoku(IEIC Technical Report
   (Institute of Electronics, Information and Communication Enginners),
   1990, VOL.89,NO.451(SSE89 163-175), PAGE.43-48, FIG.8, TBL.1, REF.8
JOURNAL NUMBER: S0532BBG
UNIVERSAL DECIMAL CLASSIFICATION: 621.394/.395
LANGUAGE: Japanese   COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication
ABSTRACT: This paper describes a study on a B-ISDN transport network
   architecture based on a cross-connect technique. First, merits of ATM
   and STM cross-connect system are presented. ATM has a flexibility of
   connecting band-width, while STM has a large connection capability.
   Taking both merits into consideration, a ATM/STM hierarchical
   cross-connect system is proposed. Next, transmission **efficiency** and
   cross- **connect** node **cost** are **evaluated** for the ATM, STM, and
   ATM/STM hierarchical system in order to validate the proposed system.
   As a result, it is clarified that the hierarchical system has a high
   transmission efficiency like the ATM, and low node cost like the STM
   system. Furthermore, B-ISDN evolution scenario using the proposed
   hierarchical system is introduced. (author abst.)
? t14/7/60,62

  14/7/60   (Item 1 from file: 99)
DIALOG(R)File   99:Wilson Appl. Sci & Tech Abs
(c) 2004 The HW Wilson Co. All rts. reserv.

2142656   H.W. WILSON RECORD NUMBER: BAST00036608
Decision-support system yields better pipeline route
Dey, Prasanta Kumar; Gupta, Soumitra Shankar
Oil & Gas Journal v. 98 no22 (May 29 2000) p. 68-73
DOCUMENT TYPE: Feature Article ISSN: 0030-1388

ABSTRACT: A decision-support system for pipeline route selection has been

created that applies an analytical hierarchy process (AHP)--a multiple attribute decision-making technique. AHP takes account of every route-selection factor--the shortest total distance, accessibility, constructability, governmental stipulations, operability, expansion capability, and maintainability--interactively. The system is demonstrated using a case study of route selection, and a **cost** -benefit **comparison** of the shortest route--conventionally chosen--and **optimal route** proves the model's effectiveness.

14/7/62   (Item 1 from file: 233)
DIALOG(R)File 233:Internet & Personal Comp. Abs.
(c) 2003 EBSCO Pub. All rts. reserv.

00354062   94MU07-004
  Breaking network bottlenecks -- Step up the speed and convenience of Ethernet: add a fast, flexible router to your LocalTalk network
   Rizzo, John
   MacUser , July 1, 1994 , v10 n7 p106-114, 6 Page(s)
   ISSN: 0884-0997
   Company Name: Farallon Computing; International Transware
   Product Name: Farallon InterRoute/5; Transware EtherWay
   Presents a buyer's guide to network Ethernet routers. Features a table **comparing** 11 products **costing** under $3,000 from nine vendors on 12 different attributes. Explains that a router directs data in multiple networks along the most **efficient path** from source to destination and also forwards communication protocols for LocalTalk, Ethernet, or other types of connectivity technology. Claims that thes routers significantly increase efficiency and speed of performance of busy networks. Gives tips for managing the routers on a network for top performance. Says selecting a router is a matter of fit with your network, budget, and desire for management control. Recommends Farallon InterRoute/5 ($3,499) from Farallon Computing of Alameda, CA (510) and Transware EtherWay ($1,499) from International Transware of Mountain View, CA (415). Includes 11 product photos and summaries, one table of benchmark test results, a rating summary, a graphic image, and a diagram. (DJP)

Set	Items	Description
S1	3459161	COMPARE? ? OR COMPARING OR COMPARISON?
S2	1273082	EVALUAT???? ?
S3	174266	S1:S2(3N)(COST OR COSTS OR COSTED OR COSTING? OR EXPENSE? ? OR EXPENDITURE? OR PRICE OR PRICES OR FEE OR FEES)
S4	4069746	CONNECT???? ? OR CONNECTIVIT? OR ROUTE OR ROUTES OR ROUTED OR ROUTING OR PATH? ? OR PATHWAY? ?
S5	412621	S4(3N)(NETWORK? OR NET()WORK? ? OR EXTRANET? OR INTERNET? ? OR INTRANET? OR VLAN? ? OR VPN? ? OR LAN OR LANS OR WAN OR W-ANS OR WLAN OR WLANS)
S6	582970	BASELINE? ? OR BASE()LINE? ? OR BENCHMARK? OR BENCH()MARK? ? OR YARDSTICK? OR YARD()STICK? ? OR TOUCHSTONE? OR TOUCH()ST-ONE? ? OR TEMPLATE?
S7	3503	(OPTIMAL OR OPTIMUM?)(2W)S4
S8	13	S3(S)S7
S9	38683	(OPTIMIS? OR OPTIMIZ? OR BEST OR EFFICIEN? OR EFFICACIOUS? OR EFFECTUAL? OR EFFECTIVE?)(2W)S4
S10	1272	COSTBENEFIT? OR COSTEFFICIEN?
S11	71	S3(S)S9
S12	2	S10(S)(S7 OR S9)
S13	84	S8 OR S11:S12
S14	36	S13/2001:2004
S15	47	S13 NOT (S14 OR ORBLINK)
S16	34	RD (unique items)

 16/3,K/3   (Item 1 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2004 ProQuest Info&Learning. All rts. reserv.

02030288 54815789
Decision-support system
Dey, Prasanta Kumar; Gupta, Soumitra Shankar
Oil & Gas Journal v98n22 PP: 68-73 May 29, 2000
ISSN: 0030-1388 JRNL CODE: OGJ

WORD COUNT: 2403

...TEXT: factor interactively. The system is demonstrated here through a case study of route selection.

A **cost** -benefit **comparison** of the shortest route (conventionally selected) and **optimal route** establishes the effectiveness of the model.

Goals; mistakes

Cross-country petroleum pipeline route selection is...

16/3,K/5   (Item 3 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)

01906339 05-57331
Decision support system for pipeline route selection
Dey, Prasanta Kumar; Gupta, Soumitra S
Cost Engineering v41n10 PP: 29-35 Oct 1999
ISSN: 0274-9696 JRNL CODE: ACO
WORD COUNT: 2743

...TEXT: demonstrated here through a case study of pipeline route selection, from an Indian perspective. A **cost** -benefit **comparison** of the shortest route (conventionally selected) and the **optimal route** establishes the effectiveness of the model.

Headnote:

Key Words: pipeline, decision support system, analytical hierarchy...

16/3,K/8   (Item 6 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)

01184093 98-33488
Clear Process manages fine
Heck, Mike
InfoWorld v18n14 PP: 91 Apr 1, 1996
ISSN: 0199-6649 JRNL CODE: IFW
WORD COUNT: 755

...TEXT: the entry of information, and we had to delete these manually.

We used charts to **compare** the time and **cost** of a process taking different paths. Clear Analyzer can also identify critical (the longest or most costly) and **optimal** (most **efficient**) **paths** . Sometimes a process contains parallel tasks or actions that are affected by probability - conditions that...

16/3,K/9   (Item 7 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)

01159319 98-08714
The future of the router
Atkinson, Sarah
Telecommunications (International Edition) v30n1 PP: 38-39 Jan 1996
ISSN: 0040-2494 JRNL CODE: TIE
WORD COUNT: 1632

...TEXT: line cost or speed of connection, as a slow link generally has a higher real **cost** . Routers **evaluate cost** , funnelling information down the most desirable network path. The router also has the intelligence to

find the next **best** **route** if the first choice is unavailable. Advanced
switches show no signs of adopting this functionality...

 16/3,K/19   (Item 17 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)

00262488 85-02921
On Estimating Access Costs in Relational Databases
Maio, D.; Scalas, M. R.; Tiberio, P.
Information Processing Letters v19n3 PP: 157-161 Oct 19, 1984
ISSN: 0020-0190 JRNL CODE: IPL

...ABSTRACT: focused on developing complex software modules, called
optimizers, whose task is the choice of an **efficient** access **path** for a
given query.   The capacity to select the **best** access **path** depends
strongly on the degree of formulas refinement and the database parameters
employed by the optimizer in cost prediction. An operational method is
proposed for **evaluating** the **cost** of accessing tuples of a relation via
an index. The possible clustering of column values in data pages is taken
into consideration in the **cost** **evaluation** . The proposed technique uses
the average number of different page identifiers associated in the index...

 16/3,K/27   (Item 4 from file: 635)
DIALOG(R)File 635:Business Dateline(R)

0334245 92-84676
Bellcore Tool Makes Planning for SONET-Based Fiber-Optic Networks Easy,
    Affordable and Reliable
Munoz, Deanna
Business Wire (San Francisco, CA, US) s1 p1
PUBL DATE: 921019
WORD COUNT: 383
DATELINE: Morris Township, NJ, US

TEXT:

    ...City area.

    The SONET Toolkit offers two utilities. The "Ring Analyzer" helps
experienced network planners **compare** **costs** for SONET ring equipment.
SONET rings are networks that encircle an area such as a...

...fiber and associated electronics would be required for a SONET ring and
to create the **optimal** **routing** for the services carried on the ring
network.
    The second utility, the "Architecture Selector," helps...
?

File 347:JAPIO Nov 1976-2003/Nov(Updated 040308)
         (c) 2004 JPO & JAPIO
File 350:Derwent WPIX 1963-2004/UD,UM &UP=200418
         (c) 2004 Thomson Derwent
File 348:EUROPEAN PATENTS 1978-2004/Mar W04
         (c) 2004 European Patent Office
File 349:PCT FULLTEXT 1979-2002/UB=20040401,UT=20040325
         (c) 2004 WIPO/Univentio

```
Set      Items    Description
S1          32    AU='CAHN R':AU='CAHN ROBERT WOLFGANG'
S2      547221    NETWORK? OR NET()WORK? ?
S3           3    S1 AND S2
S4       92234    PVC? ? OR PERMANENT()VIRTUAL()CIRCUIT?
S5           0    S1 AND S4
S6     2732617    CIRCUIT?
S7           1    S1 AND S6
S8           0    S7 NOT S3
```

015229618   **Image available**
WPI Acc No: 2003-290540/200329
XRPX Acc No: N03-250144
   Evaluating network **access arrangement from alternate access connection**
   involves comparing and reporting results of test downloaded to benchmarks
   for test that could be run on access connection to backbone
Patent Assignee: AT & T CORP (AMTT); CAHN R (CAHN-I)
Inventor: **CAHN R**
Number of Countries: 002 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
CA 2393919	A1	20030119	CA 2393919	A	20020718	200329	B
US 20030218983	A1	20031127	US 2001909123	A	20010719	200378	

Priority Applications (No Type Date): US 2001909123 A 20010719
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
CA 2393919	A1	E	16	H04L-012/26	
US 20030218983	A1			H04L-001/00	

Abstract (Basic): CA 2393919 A1
       NOVELTY - The method involves comparing the results of the test
   that has been downloaded to benchmarks for the test that could be run
   on a set of access connection to a **network** backbone (10) from other
   than an alternate access connection. The results of the comparison is
   then reported.
       DETAILED DESCRIPTION - The test is downloaded through the **network**
   backbone to a **network** that will produce a virtual private **network**
   (VPN) for a user to simulate interactions with the VPN and the
   alternate access connection. An INDEPENDENT CLAIM is also included for
   improving access to a VPN.
       USE - Used in telecommunications services.
       ADVANTAGE - Improves **network** access when there is a mixture of
   access technologies available to users of the **network** . Allows VPN
   provider to advise the customer of better or best access connections to
   use. Allows **network** designers and providers to improve data
   throughput in a VPN and to greatly increase efficiency of the VPN for a
   customer. Allows VPN provider to inform customers regarding the
   performance to their VPN and to advise customers of the type of
   services that should be accessed through a private service to the VPN
   as opposed to access to the VPN through some other type of access
   connection.
       DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of a
   system for testing VPNs.
       Network backbone (10)
       pp; 16 DwgNo 3 /6
Title Terms: EVALUATE; **NETWORK** ; ACCESS; ARRANGE; ALTERNATE; ACCESS;
   CONNECT; COMPARE; REPORT; RESULT; TEST; TEST; RUN; ACCESS; CONNECT;
   BACKBONE
Derwent Class: T01; W01
International Patent Class (Main): H04L-001/00; H04L-012/26
International Patent Class (Additional): H04L-012/56
File Segment: EPI
Manual Codes (EPI/S-X): T01-N01A2D; T01-N02A3B; T01-N02B; W01-A06A;
   W01-A06B7E; W01-A06D; W01-A06E

009108225   **Image available**
WPI Acc No: 1992-235655/199229
XRPX Acc No: N92-179427
   Compression control for data communication network – generating at node
   indications of maximum degree of compression capability supportable with
   neighbouring nodes to node
Patent Assignee: INT BUSINESS MACHINES CORP (IBMC); IBM CORP (IBMC)
Inventor: BROUGHTON J C; **CAHN R S** ; GRAY J P; ODONNELL J P
Number of Countries: 005 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 494576	A1	19920715	EP 91480191	A	19911220	199229	B
US 5131016	A	19920714	US 91638928	A	19910109	199231	
JP 5160835	A	19930625	JP 91265096	A	19911014	199330	
EP 494576	B1	19961002	EP 91480191	A	19911220	199644	
DE 69122487	E	19961107	DE 622487	A	19911220	199650	
			EP 91480191	A	19911220		

Priority Applications (No Type Date): US 91638928 A 19910109
Cited Patents: EP 332345; US 4058672; WO 8400266
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 494576	A1	E	17	H04L-029/06	
US 5131016	A		14	H04B-001/66	
EP 494576	B1	E	19	H04L-029/06	

   Designated States (Regional): DE FR GB

DE 69122487	E			H04L-029/06	Based on patent EP 494576
JP 5160835	A			H04L-012/28	

Abstract (Basic): EP 494576 A
     The compression control method involves generating at the node
   indications of the maximum degree of data compression capability
   supportable with neighbouring nodes to the node, if any, in two
   directions from the node. The node's data compression operation is
   controlled in accordance with said indications.
     Indication of the maximum degree of data compression supportable
   at the nodes neighbouring nodes are received at the node. The node's
   own degree of data compression capability are compared with the
   received indications.
     ADVANTAGE – Eliminates intermediate decompression and compression
   occurring at **network** nodes handling communication.
     Dwg.1,3/5
Abstract (Equivalent): EP 494576 B
     A method of controlling the degree of compression applied by a node
   of a data communications **network** having plural interconnected nodes
   for sending and receiving data, any two of which nodes defining link
   terminal ends for the purposes of a given communication, each said node
   having an identifiable degree of data compression capability and
   settable nodes of data compression operation less than or equal to the
   identifiable compression capability, the method being applied to
   transmitted or received data over a link whose ends are defined in the
   network by any two of the nodes, the method comprising the steps of
   generating at the node indications of data compression capability
   supportable with neighbouring nodes, controlling the node's data
   compression operation in accordance with the indications, sending the
   indications to neighbouring nodes from the node to which the

indications pertain and receiving at the node, indications of data
compression capability supportable at the node's neighbouring nodes,
the method being characterised in that: the generating step indications
(M2) consist in the maximum degree of data compression capability
supportable with neighbouring nodes to the node, if any, and in first
and/or second directions from the node; the controlling step applies to
the node's data compression operation in the first and/or second
directions from the node in accordance with the indications; the
sending step of the indications applies to any said neighbouring nodes
lying in the first and/or second directions, respectively, from the
node to which the indications pertain; the receiving step at the node
applies to indications (M1) of the maximum degree of data compression
supportable at the node's neighbouring nodes, if any, and, further
comprising a step of: comparing the node's own degree of data
compression capability, if any, with the received indications, if any.
        (Dwg.1/5
Abstract (Equivalent): US 5131016 A
        Data communication nodes in a **network** comprising a number of
nodes linked together to form communication paths negotiate by passing
messages to identify to one another the maximum supportable degree of
data compression capability. Logical comparisons are made at each node
between indications received from upstream and downstream nodes, if
any, regarding their own or their received indications of data
compression capability with the present node's own degree of
compression capability.
        This enables logical decisions to be made to support the maximum
degree of compression capability over each link or portion of a link
between terminal nodes which define the ends of the overall link.
        ADVANTAGE - Improves data transmission by providing highest degree
of supportable compression over longest path length.
        Dwg. 2/5
Title Terms: COMPRESS; CONTROL; DATA; COMMUNICATE; **NETWORK** ; GENERATE;
   NODE; INDICATE; MAXIMUM; DEGREE; COMPRESS; CAPABLE; SUPPORT; NEIGHBOURING
   ; NODE; NODE
Derwent Class: W01
International Patent Class (Main): H04B-001/66; H04L-012/28; H04L-029/06
International Patent Class (Additional): H03M-007/30; H04J-015/00;
   H04L-012/54
File Segment: EPI
Manual Codes (EPI/S-X): W01-A07G

   3/5/3   (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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00495643
Method and system for controlling the degree of compression applied by a
      node of a data communication network
Verfahren und Vorrichtung zur Kontrolle des Kompressionsgrades, angewendet
      von einem Knoten eines Datenkommunikationsnetzwerkes
Procede et dispositif pour controler le degre de compression applique par
      un noeud d'un reseau de communication de donnees
PATENT ASSIGNEE:
   International Business Machines Corporation, (200120), Old Orchard Road,
      Armonk, N.Y. 10504, (US), (applicant designated states: DE;FR;GB)
INVENTOR:
   Broughton, John Craven, 4808 Sleepy Hollow Drive, Raleigh, NC 27612, (US)
    Cahn, Robert Stern , Gipsy Trail Club, Carmel, NY 10512, (US)
   Gray, James Peyton, 904 Emory Drive, Chapel Hill, NC 27514, (US)
   O'Donnell, John Patrick, 105 Glenrose Lane, Cary, NC 27511, (US

ABSTRACT EP 494576 A1
   Data communication nodes in a **network** comprising a plurality of nodes
   linked together to form communication paths negotiate by passing messages
   to identify to one another the maximum supportable degree of data
   compression capability. Logical comparisons are made at each node between
   indications received from upstream and downstream nodes, if any,
   regarding their own or their received indications of data compression
   capability with the present node's own degree of compression capability.
   This enables logical decisions to be made to support the maximum degree
   of compression capability over each link or portion of a link between
   terminal nodes which define the ends of the overall link, thus improving
   data transmission by providing the highest degree of supportable
   compression over the longest path length. (see image in original
   document)

ABSTRACT EP 494576 B1
   Data communication nodes in a **network** comprising a plurality of nodes
   linked together to form communication paths negotiate by passing messages
   to identify to one another the maximum supportable degree of data
   compression capability. Logical comparisons are made at each node between
   indications received from upstream and downstream nodes, if any,
   regarding their own or their received indications of data compression
   capability with the present node's own degree of compression capability.
   This enables logical decisions to be made to support the maximum degree
   of compression capability over each link or portion of a link between
   terminal nodes which define the ends of the overall link, thus improving
   data transmission by providing the highest degree of supportable
   compression over the longest path length.
ABSTRACT WORD COUNT: 123

```
         SPEC B      (English)  EPAB96       7113
Total word count - document A              8273
Total word count - document B             11342
Total word count - documents A + B        19615
```